ANNUAL REPORT

OF THE

ARCHÆOLOGICAL SURVEY OF INDIA

1935-36

EDITED BY

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Director General of Archæology in India.

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FOR THE YEAR

1935-36.

INTRODUCTION.

The financial position in the year under review was unchanged and left much to be desired. Before the undersigned took over charge of the Archæological Department the budget had been submitted to Government and was to all intents and purposes similar to that for the previous year. It was, therefore, impossible with the funds at our disposal to undertake any large works either in the field of exploration or in that of the conservation of monuments. The Bihar earthquake of 1934, having badly shaken a considerable number of our monuments in that and other adjoining Provinces as reported last year, the Government of India made a special grant of Rs. 28,100 and the Government of the United Provinces Rs. 30,000 to complete the special repairs to the Akbari Bridge at Jaunpore that were commenced in the previous year. It may be mentioned here that the Government of India realising that the funds of the Department have been most seriously depleted, have sanctioned a special grant of Rs. 2 lakhs for Conservation for the succeeding year.

Perhaps the chief event of the year in Indian Archæology has been the advent of the first foreign exploration expedition to India, namely, the American School of Iranian and Indic Studies headed by Dr. E. J. H. Mackay (at one time a special Exploration Officer in the Indian Archæological Department) as foreshadowed in last year's report. This Society, which conducted excavation operations at Chanhudaro in the Nawabshah District of Sind, has had a most successful season. Of the finds made by the Expedition, India retained all unique specimens and a very full share of other antiquities and the residue, which Dr. Mackay was able to send over to America, has been much appreciated there, and it is hoped that other Societies from America and other lands will be attracted to the fertile field that awaits them in Indian Archæology.

The prospect of more non-official activity, both Indian and foreign, in the excavation field in the near future has brought into relief the inadequacy of the Department's cadre. Endeavours have been made to revive the post of a Special Officer for Exploration, as it is felt that if several private Societies take up excavations at different sites in various parts of the country, it will be beyond the capacity of the Director General and his Circle officers to supervise their work as they have their own multifarious duties to attend to. It is also intended that the Special Officer shall train Indian scholars in the principles of excavation in order to fit them to conduct excavations on behalf of Indian States and non-official Societies. It is regretted, however, that the Government of India has not yet been able to accede to this request.

An interesting ceremony took place at Sarnath in November 1935 when the Director General of Archæology in India on behalf of His Excellency the Viceroy of India presented to the Mahabodhi Society for enshrinement in the Mulagandhakuti Vihara at Sarnath certain Buddhist relics, which had been found by the late Mr. Henry Cousens of the Archæological Survey of India in 1910 at Mirpur Khas in Sind. These relics had remained since the year of their discovery in the Prince of Wales Museum at Bombay.

The Director General was able for the first time after many years to visit Burma (the last occasion being in 1924 when an officer from the Head Office, the writer, then Deputy Director General of Archæology was deputed to pay a visit to that country) and to inspect, so far as time permitted, various conservation works that had been executed or were in progress. Burma will be separated from India in April 1937 and as a result, the Archæology of that country will be directed locally, the Archæological Survey of India being no longer officially concerned with it. Owing to the serious illness of the permanent Archæological Superintendent of Burma Circle, which coincided with the Director General of Archæology's visit, the services of Mon. Chas. Duroiselle, who had retired some years previously, were re-engaged at short notice, as there was no suitable officer to take charge. It has also been arranged that this officer shall train a young Burman to succeed him after a suitable period of probation.

In this Report will be found a list of those publications issued during the year and of those sent to the Press, which, it is believed, presents a fairly formidable record of literary work executed by our officers during the year. Among persons not employed by the Department I wish to refer to the very useful work being done by Mr. S. Paramasivan, the Archæological Chemist attached to the Government Museum at Madras, who is taking great interest in the question of the preservation of frescoes in the South Indian temples and has submitted a very well-considered report on the complicated question of the frescoes in the Brihadisvara temple at Tanjore.

Sanction has been given by the Government of India to a scheme of distribution to the principal Museums of India of surplus antiquities now housed at the small local Museum at Mohenjodaro. It is proposed to retain a fully representative collection at the site, but in order to provide more space for

future acquisitions at Mohenjodaro and to afford facilities to students in different parts of India to study and compare the finds discovered in Sind, this scheme has been evolved and hundreds of spare antiquities will be disposed of in this manner. To facilitate the distribution work, a special officer was employed to split up the surplus collection into representative and equal sets. It is hoped at a later date to take similar action in respect of spare or surplus antiquities in the local Museums maintained by the Department at Harappa, Sarnath and other sites.

The undersigned is much indebted to Rao Bahadur K. N. Dikshit, Deputy Director General of Archæology in India, for recasting portions of the 'Exploration' and Museum Sections and to him and Mr. H. L. Srivastava, Assistant Superintendent, Archæological Survey of India, for the willing assistance they have given him in editing both this and the previous year's report.

J. F. BLAKISTON,
Director General of Archæology.

NEW DELHI,
The 1st March, 1937.

SECTION I.—CONSERVATION.

UNITED PROVINCES.

By Khan Bahadur Maulvi Zafar Hasan.

An expenditure of Rs. 1,53,030 was incurred on the conservation of ancient monuments in the United Provinces of Agra and Oudh, of which amount Rs. 30,000 were contributed by the Government of the United Provinces towards the conservation of the Akbari Bridge at Jaunpur. The bridge, which spans the Gomti river, has a public road running over it, and this accounts for that Government's assistance in its repairs.

In the last year's report an account was given of the repairs executed to certain ancient monuments in the United Provinces that had been damaged by the earthquake of 1934, and such of them as were still in progress this year have been brought to completion. The most important of these works was the conservation of the aforementioned AKBARI BRIDGE AT JAUNPUR which, for technical reasons, has been executed through the agency of the Central Public Works Department. As recorded by the inscriptions on the bridge, it was constructed by Munim Khan, Khan-i-Khanan, a noble in the court of the Emperor Akbar, under the superintendence of Shaikh Nizamud-d-Din, Ustad Afzal Ali of Kabul having been the architect. The inscriptions are dated from 972 A.H. (1564-65 A.D.) to 975 A.H. (1567-68 A.D.) and it appears that the building took four years to construct. Running from north to south the entire bridge is 654 feet in length and is divided into two portions by a plot of land, 125 feet in width, lying almost as an island in the midst of the Gomti river. The southern or the principal bridge consists of 10 arches and is 353 feet long, while the northern one has only 5 arches and measures 176 feet in length. Each pier is surmounted by a pair of kiosks, one on either side of the road, along the whole length of which is a parapet on both sides (Plate I*a*). The central feature on the island is a colossal stone figure of a lion standing on a platform, which is surrounded by latticed stone railings. The provenance of the stone lion is unknown, but it was probably removed from some Hindu building. A mosque and a series of shops also stand on the island, but they possess little importance. The principal bridge suffered most from the earthquake shocks, the masonry of its first, second, fifth, sixth and eighth arches from the north being badly shattered. These arches were dismantled and rebuilt and repairs to the fourth and seventh arches, which had sustained less damage, were also executed. The open joints in the stone facing of the whole structure were pointed with cement mortar and two of the kiosks, which had collapsed, were reconstructed; while minor repairs such as the grouting of cracks, replacement of broken stone lintels and columns, etc., of several other kiosks and shops were undertaken. The public roadway over the bridge was renewed. The

repairs, which have given a new lease of life to this fine bridge, were executed at a total cost of Rs. 50,040.

The conservation of the gateway to the GULAB BARI AT FYZABAD, which was also damaged by the earthquake, was taken in hand last year, but as the estimate for it had to be revised and the full requisite funds were not available, the work was continued to this year. It consisted in the renewal of the shattered roofs of the *dalans* and compartments on either side of the archway, and the grouting of cracks in their walls and arched openings. The Gulab Bari, meaning a Rose Garden, is the tomb of Shuja-ud-Daula, the third Nawab Wazir of Oudh, the first being Saadat Khan and the second Abul Mansur Safdar Jang. The tomb was built by Shuja-ud-Daula himself during his life time, and on his death he was buried there in the year 1775.

Repairs to the damage caused by the earthquake to the TAJ MOSQUE AT AGRA were started last year. The original estimate framed for the work amounted to Rs. 17,186, but in the course of the execution of the work it was found that the cost of the project had been much under-estimated. Many of the stone slabs, which were proposed only to be dismantled and reset, were found to be decayed and unserviceable, requiring replacement by new ones, and their handling at a considerable height necessitated a very strong scaffolding (Plate II*b*). The work was ultimately completed at a total cost of Rs. 26,951.

Other works executed in the District of Agra related to annual repairs, the more important being detailed below. Some of the facing stones in the western façade of the Tasbih Khana or Jawab at the Taj having become dislodged were bulging out and showed a tendency to fall down. They were taken out and reset being imbedded in lime mortar and secured with copper dowels. The dilapidated gateway of the KATRA JOGIDAS IN THE TAJGANJ quarter was repaired, its roof, which had collapsed long ago, being rebuilt at the same time. The floor of the SHISH MAHAL AT THE AGRA FORT was laid with white cement concrete in keeping with the building, and the decayed facing stones at the north-east corner of the JAHANGIRI MAHAL were replaced by new ones. The latter is the most ornate building in the Agra Fort. It is constructed of red sandstone richly ornamented with carving, and is amongst the best specimens of early Mughal architecture with Hindu details and decoration. The decayed stones appeared very unsightly and in replacing them care was taken that the new work should be exactly similar to the original. The restoration of *pietra dura* ornamentation at the TOMB OF ITIMAD-UD-DAULA was continued, and the central platform on the roof was attended to this year. Many of the inlay pieces in this decorative work have disappeared, and as the task of restoring is of a special nature, requiring considerable patience and skill, it cannot be done satisfactorily on a contract basis. An inlay worker with an assistant coolie has been employed to reset the missing and dislodged pieces, and the work is being executed gradually out of the grants for annual repairs. The northern jamb of the central arch in the east façade of AKBAR'S TOMB AT SIKANDRA having gone out of plumb and some of its facing stones disintegrated, the affected slabs were taken out and reset, while the unserviceable stones were replaced

by new ones. For want of funds the restoration of the marble inlay decoration in the repaired portion could not be undertaken and this work has had to be postponed to another year Another structural work carried out at this building was the reconstruction of the dilapidated bastion at the north-west corner of the enclosure. There yet remains the rebuilding of the *chhatri* which originally surmounted the bastion. The BARA KHAMBA AT KAGAROL, which is the tomb of a Muslim saint named Shaikh Ambar, also received attention. It is constructed of red sandstone and has twelve pillars supporting a central dome, which is surrounded by four domed *chhatris* that are in a very precarious condition and are likely to fall down. One, which had been in imminent danger of collapse, was dismantled and rebuilt this year (Plate II*a*) and the other *chhatris* and the central dome will be attended to gradually as funds permit. The west wall of the JAGNER FORT and a staircase in its thickness, which had been in a ruined state, were thoroughly conserved.

In the Jhansi District further repairs were executed to the JAMI MOSQUE AT ERACHH, which was erected during the reign of Mahmud Tughlaq in the year 1412 A.D. Several arches and domes of the building had been cracked by the earthquake shocks, and measures necessary to their conservation were adopted last year, when the cracked arches were supported on masonry arches built under them and the cracks in the domes and roof were grouted with cement. In the course of those repairs it was found that the domes were constructed of brick-in-mud coated with lime concrete, and that they had previous cracks which had been covered over with another coating of lime concrete, probably during the later Mughal period. This subsequent coating having pulverized absorbed water, and it has now been removed and replaced by new plaster. The dome at the south-west corner had been badly shattered, but it was found possible to repair it. The wide cracks, which had appeared in it, were filled in with brick in lime, and the whole cupola was coated with new plaster Another monument in this District at which special repairs were carried out was the FORT AT TALBEHAT. The dusty floors in the *dalans* on the first storey of the Singhpur Gate of the Fort were relaid with lime concrete and the pathway in front of that gate was repaved. The walls of the temple known as Devi-ki-Marhi inside the Fort were conserved. At various places their bulged-out masonry was dismantled and rebuilt. In connection with the annual repairs improvements were executed at the group of Jain temples at CHANDPUR in the same District. The plinth of the main shrine was cleared of earth and débris and was restored. The compound was also made tidy, and a large number of stone images, which were lying scattered there, were systematically arranged on and along the restored plinth. The roof of another shrine of the group was rendered watertight and its floor laid with lime concrete.

The work of special repairs executed to the temples at TALLIHAT NEAR BAIJNATH in the Almora District consisted of the conservation of the Satyanarayan, the Lakshminarayan and the Rakash Deval temples. At the first of these the northern doorway was rebuilt and provided with wooden door leaves of Hindu design. The plinth was exposed on the north and east sides. and a boundary

wall of dry rubble stone was constructed. The portico of the Lakshminarayan temple with its pillars out of plumb was in a very precarious condition. It was dismantled and rebuilt and the cracked roof slab of the *mandapa* was supported on an iron girder encased in cement concrete; its floor was also repaved with stone flags and the missing stones in the spire were replaced by new ones. Excavation on the north and east sides of the temple revealed the original floor level and traces of the old stone pavement, which was exposed to view; but the clearing operations could not be extended to the other two sides where the adjoining ground is in private occupation. Arrangements are being made to acquire sufficient land to disclose all the original floor of the temple. The Rakash Deval temple appears at some time to have suffered from a severe earthquake shock which disturbed the whole of its masonry. The dislodged stones have been reset and the missing ones replaced, while the wide open joints have been filled with cement concrete to render them watertight and the building secure.

The repairs to the roadways in the RESIDENCY GROUNDS AT LUCKNOW referred to in the last year's report, were brought to completion, the two roads passing through the entrance gates being coated with asphalt. These roads being steep used to be cut by the force of rain water and invariably remained in an untidy state. The treatment with asphalt has added greatly to their improvement. Other works of special repairs carried out at Lucknow were the provision of a drain at the IMAMBARA OF ASAF-UD-DAULA and the reconstruction of a tower at the east end of the outer gateway of the same monument. The ancient buildings at Lucknow owe their origin to the Nawabs of Oudh, who had their kingdom established in the middle of the 18th Century A.D. Originally the seat of Government was at Fyzabad, but Asaf-ud-Daula, the fourth Nawab in succes sion, transferred it to Lucknow on his accession to the throne in the year 1775. To embellish his new capital he constructed many buildings and one of these was the Imambara under reference, which is related to have been erected in the year 1784 as a famine relief work to provide the suffering people with employment. Upon his death in the year 1800, Asaf-ud-Daula was buried in the Imambara and his tomb is marked by a plain stone slab without an inscription. The structure is one of the earliest and most important buildings in Lucknow. It is entered from the north by two imposing gateways, one leading to the other, with an open courtyard surrounded by a series of arched compartments between the two gates. Beyond the inner gate there is again a large open courtyard, and the main building stands on a raised platform to the south. It consists of a central hall flanked by an octagonal compartment on the east and west, and a verandah or *dalan* running from front to back or, in other words, north to south (Plate I*b*). The whole structure is vaulted, the solidity of the huge spans doing credit to their builder. The building is constructed of brick masonry coated with plaster, but the inferior quality of the material, particularly of the bricks which are not properly burnt, coupled with the dampness of the locality has subjected the building to decay and to the effects of saltpetre. An elaborate scheme for its repairs has been drawn

up, and will be given effect to gradually as funds are available. In this connection a drain has been constructed this year to carry off rain water from the roofs to a neighbouring ditch on the west.

During the monsoon rains of the year 1934 the tower at the east corner of the outer gate of the Imambara suddenly collapsed. The work of its reconstruction was taken in hand this year, but for want of sufficient funds it could not be completed and will continue in the ensuing year. The original domed *chhatri* surmounting the tower was ornamented with incised plaster decoration but, as it was doubtful whether an exact reproduction of the ornamental work could be made, the new *chhatri* has been coated with plain plaster except for a few mouldings which were simple and could be reproduced without any mistake.

The total number of monuments which received attention during the year in the United Provinces of Agra and Oudh was not less than 300. Petty works of annual repairs were done to them and they were kept in a neat and tidy condition.

Gardens.

The Archæological Gardens in the United Provinces of Agra and Oudh were maintained as efficiently as usual. At the Taj Gardens the annuals provided a fine display in flower beds, and the general appearance of the lawns was much improved by the introduction of a new variety of grass which flourishes in the shade of trees. The parterres in which the cypress trees grow on either side of the main water channel were levelled and regrassed and the old biotas bordering the causeways on either side were replaced by new plants. In the forecourt of the Taj Mahal cast iron pipes were laid underground to replace the earthenware ones which frequently burst and caused interruption in the supply of water to the grassed plots in that area. The water supply in the Agra Fort Gardens was disturbed for some time by the breakdown of its pumping plant, which had to be overhauled. An endeavour was made to keep the place green, and in spite of the lack of water the garden fared fairly well. At the garden of Itimad-ud-Daula's tomb at Agra the roses which had been planted along the sides of the causeways were removed and their beds grassed over. Attempts were made to screen the wall to the north of the main entrance with creepers, but due to constant damage to them by monkeys the result was not encouraging. Four large *nim* trees standing along the central pathway at the Roman Catholic Cemetery at Agra were removed, as they interrupted the avenue of the asok and grevillea robusta trees. A row of *nim* trees has, however, been planted along the west boundary wall to serve, when grown up, as a protection to delicate plants against the dry wind in the hot season. At the garden of Akbar's tomb at Sikandra the renewal of the shrubberies along the main causeway was completed. Shrubs have been planted in groups but many have been damaged by the black buck which live in the park-like enclosure. To overcome this difficulty it has been decided to revert to the old arrangement and to grow only such plants in the shrubberies as are not eaten by deer. A portion of this garden is reserved for fruit growing, and a masonry water channel

some 700 feet long was constructed there for the proper irrigation of that area. Unlike other Archæological Gardens the Ram Bagh at Agra is a fruit orchard, and this aspect of it, which is original, has been carefully maintained. The changes made here consisted in the thinning out of guava and lemon trees which had been planted too closely, the transplanting of young plums in pursuance of the scheme of mixed plantation and the rearranging of grape plants at proper distances. The arrangements for the water supply at this garden are not satisfactory. Water is raised from a well by an oil engine pump, but the well dries up during the hot season when the Jumna river recedes, and channels have consequently to be dug to connect the well with the river. Adequate measures to overcome this difficulty will have to be adopted when funds are less scarce.

The Khusro Bagh at Allahabad and the Dilkusha Garden, the Nadan Mahal Park and the Residency Grounds at Lucknow did well throughout the year. A masonry drain was constructed in the cemetery at the Residency to facilitate the watering of shrubs and grass, and the pathways in that area were spread with *morum.*

DELHI PROVINCE.

By Khan Bahadur Maulvi Zafar Hasan.

From the grant cf Rs. 74,286 for the conservation and maintenance of ancient monuments in the province of Delhi a sum of Rs. 3,003 was expended on special repairs, Rs. 21,770 on annual maintenance and Rs. 49,513 on the upkeep of the Archæological Department's gardens. Except a few petty works all the conservation operations in the province were executed through the Central Public Works Department.

Special repairs were undertaken at the MUGHAL SARAI IN THE QUTB ENCLOSURE. The northern gate of the Sarai together with an adjoining compartment on the east had collapsed in the year 1934. As the gate did not occupy a prominent position, it was considered unnecessary tc restore it, but its broken jambs and side walls were repaired, and the vaulted roof of the compartment was rebuilt. The conservation of ATGAH KHAN'S TOMB was another work of special repairs carried out during the year. Atgah Khan was the husband of one of the Emperor Akbar's wet-nurses, named Jiji Angah. After the downfall of Bairam Khan, Khan-i-Khanan, Atgah Khan was raised to the high post of Vakil oı Chancellor of the Empire, and this promotion aroused the jealousy of the other rival courtiers. A conspiracy was formed against him and he was assasinated by Adham Khan, the son of another wet-nurse of Akbar, in the year 1562 when he was transacting state business in the palace at Agra. His body was removed to Delhi for interment, and this tomb was erected by his second son Mirza Aziz Kokaltash in the year 1566. The building, which consists of a square chamber roofed by a marble dome, stands in a walled enclosure. It is constructed of red sandstone inlaid with marble and coloured tiles. The enclosure is paved with red sandstone slabs, arranged in geometrical patterns outlined with marble inlay. The pavement was badly decayed, and most of its marble inlay pieces had disappeared. In repairs

the decayed and missing slabs have been replaced by new ones, but for the sake of economy fine lime concrete finished with white cement has been substituted for the marble inlay. The broken stone pavement inside the chamber was also repaired, while the marble dome was made watertight by filling its open joints with white cement.

The Delhi Fort Gardens and the Kotla Firozshah were provided with filtered water connections. The want of drinking water at these places had been felt, and the supply of the same has been the source of great comfort to visitors as well as to the staff employed there. For the convenience of visitors direction posts of red sandstone pointing to the more important monuments have been erected. The wooden posts, which they have replaced, were too small to be distinctly readable from a distance, and they had also the disadvantage of requiring repainting periodically. For some time past there had been a proposal to acquire the TOMB OF THE EMPEROR BAHLOL LODI, which is under private occupation but, due to certain technical difficulties, the acquisition proceedings could not be completed, though the Tomb was taken possession of this year. Bahlol Lodi, who ascended the throne of Delhi in the year 855 A.H. (1451 A.D.), was the founder of the Lodi dynasty. He ruled for 38 years and died in the neighbourhood of Sakit (District Etah) in the year 894 A.H. (1489 A.D.). when he was returning from a military campaign. His corpse was carried to Delhi and interred near the shrine of the celebrated saint Nasir-ud-Din, better known as Roshan Chiragh Delhi. The Tomb is related to have been erected by his son and successor Sikandar Lodi. It is constructed of rubble stone coated with plaster, and consists of a square chamber which is divided internally into nine compartments by arched openings supported on stone columns and ornamented with medallions and Quranic inscriptions incised in plaster. Four of these compartments—the central and the corner ones—are crowned with domes, the central dome being higher than the others. Each of the four façades of the building is broken by three archways, and the central compartment is occupied by a grave which is also constructed of rubble masonry. Unfortunately the tomb is occupied for residential purposes by some of the local villagers who, in order to make it habitable, have constructed partition walls inside and subjected it to many other alterations. The whole of its interior is blackened with smoke, and the plaster coating has mostly peeled off. Externally it is enclosed with mud huts and walls which have made the locality thoroughly untidy. With a view to maintaining the tomb properly it is proposed to acquire also a piece of land surrounding it, and as soon as this is done necessary measures will be adopted for its conservation.

Apart from maintaining all the ancient monuments in the Delhi Province in a neat and tidy condition, as many as 68 of them received treatment in the shape of small annual repairs, while more extensive repairs were executed at the tomb of Sikandar Lodi. The latter together with several other buildings of the Lodi period has been embraced within the new Lady Willingdon Park laid out during the year, and the improvement to their surroundings has much increased the attractiveness of these monuments. (Plate II *c* and *d*).

Gardens.

The gardens attached to the Archæological buildings at Delhi were very satisfactorily maintained throughout the year. The lawns which form a prominent feature were well kept, and proper attention was paid to the mulching and pruning of trees and shrubs and the replacement of dried ones by fresh plants. At the garden of Humayun's tomb certain *nim* trees, which had self grown and were not systematically placed, were removed and the flower beds on the main approaches there were provided with suitable plants to give a pleasing colour effect. A few losses among the rows of cypresses occurred in the Safdarjang garden. This was due to the bad condition of the soil, and in the replacement of casualties care has been taken to remedy the defect. A difficulty was also experienced in establishing the *inga dulsis* hedges owing to white ants, and it is proposed to replace them by clerodendron which is immune from that pest. The Qutb garden fared well with the more regular supply of water now available. The steam boiler of the pumping plant here was overhauled, and it is proposed to replace the pumps in the ensuing year. The Delhi Fort garden continued to enjoy its popularity. It was splendidly decorated on the occasion of the Silver Jubilee of His late Majesty King George V. An elaborate lighting display was arranged there by festooning the trees and shrubs with electric light bulbs which, when lit up at night gave a very pleasing and spectacular appearance to the whole garden.

THE PUNJAB AND THE NORTH-WEST FRONTIER PROVINCES.

By Mr. Muhammad Hamid Kuraishi.

In the Frontier Circle the total expenditure on conservation works during the year was Rs. 61,398, of which amount Rs. 50,408 were spent through the Archæological Superintendent direct in the Punjab and Rs. 2,543 in the North-West Frontier Province, while Rs. 10,990 were expended on the maintenance of gardens and pumping plants by the Punjab Public Works Department. Deducting the sum of Rs. 7,788 paid for wages to the establishment entertained at the more important monuments, a sum of Rs. 24.483 remained for expenditure upon annual repairs to the monuments from the amount set aside for such works. These annual repairs consisted as usual of such items as underpinning holes and pointing open joints in walls, the grouting or filling in of cracks in roofs and parapets, securing old plaster by means of mortar fillets, renewing decayed concrete or stones, etc., restoring original features after removing modern additions and, in the case of the Lahore Fort, the maintenance of extensive lawns and shrubberies.

Repairs of a special nature were carried out at several monuments this year. In the Lahore Fort the octagonal tower near the Chhoti Khwabgah, better known as the Lal Burj and the building used up to the end of October 1935 as the residence of the Archæological Superintendent (officially known as Building No. 29 or as Archæological Rest House) were attended to. Several of the buildings

along the north side of this fort are suffering from unequal settlement or something of that nature, and in the case of the Lal Burj all its three upper storeys were out of the perpendicular, the lower ones inclining outwards and the uppermost inwards, and the roof and floors of the two upper storeys had split asunder. To arrest further movement and to prevent more damage to the tower, iron rails tied with iron tie-rods have been strapped against the walls both inside and out, and the broken roofs and floors have been dismantled and new ones of reinforced brick-in-cement provided in their places. Several arches of the verandahs, which had developed serious cracks, have been supported with T-iron lintels. This work is still in progress.

From the building used as a residence a number of modern additions erected when the LAHORE FORT was in Military use have been taken away and alterations so far as possible removed. The chief addition was a large verandah with a sloping roof on the west side and on its removal it was disclosed that the parapet above the arched openings connecting the verandah with the large room behind it, was not only built of brick-in-mud masonry of a very *kaccha* type but rested on two long wooden beams, too much decayed to serve any longer, laid above the arches from one end to the other. Similarly, on removal of modern plaster from their surfaces, several of the stone bases and shafts supporting the capitals of the pillars and the arches above were found to be shattered, and also as the modern doors and frames inserted in these arches were removed the arches were shaken and it was therefore found necessary to replace most of the shafts, to construct new arches and to dismantle and rebuild the parapet above. Since the arched openings were now exposed to view they have been repaired so as to conform as originally to the arched openings of the Chhoti Khwabgah in front of the building. These changes have greatly improved the building. In combination with this work the re-roofing of the *tehkhanas* (rooms below ground level) in front of the building was taken in hand and the brick-on-edge pavement over the new reinforced brick roofing of the *tehkhanas* was restored.

The BADSHAHI OR JAMA MOSQUE near the Lahore Fort has been in need of special repairs for a long time. It is a protected monument; but under the terms of the Agreement between the Anjuman-i-Islamia and the Archæological Department the repairs to the Mosque are to be executed by the Archæological Department and paid for by the Anjuman, the Archæological Department contributing any percentage that the Director General of Archæology may consider advisable. An estimate for special repairs to the Mosque was prepared some years ago by Dr. K. A. A. Ansari, Assistant Engineer attached to the Archæological Superintendent's office and was duly approved. The estimate amounts to about 9 lakhs of rupees and while providing for thorough repairs to the Mosque and its adjuncts also contemplates the restoration of the *chhatris* on the tops of the minars, which were dismantled many years ago owing to their insecure condition. During the year the Anjuman-i-Islamia paid over a sum of Rs. 5,000 to the Government of India for carrying out certain very urgent repairs to the entrance gateway of the Mosque and the Director General of Archæology added a further Rs. 500 from his own budget and placed the whole sum at the disposal

of the Archæological Superintendent. The repairs chiefly included the dismantling and resetting in cement mortar (after grouting in hollows where necessary) the old loose stones of the façade, replacing the cracked lintels over a number of doorways by new ones, providing new facing stones for those missing and making the roof and walls watertight by pointing the wide joints and grouting and filling in cracks, etc.

At MAHARAJA RANJIT SINGH'S MARBLE BARADARI in the centre of the Hazuri Bagh, between the Fort and the Badshahi Mosque as a result of the collapse of the upper storey a few years ago, a number of the *jali* slabs of the white marble balustrade on the roof were missing or had been damaged beyond repairs; and the roof concrete had decayed and absorbed rain water. The *jali* slabs have now been restored or replaced by new ones, and fresh concrete has been laid over the greater part of the roof.

Outside Lahore, special repairs were carried out at two monuments only, *viz.*, the TAKHT-I-AKBARI AT KALANAUR IN THE GURDASPUR DISTRICT and the SAWI MASJID AT MULTAN. The *Takht-i-Akbari*, where Akbar was crowned Emperor of India on receipt of the news of his father Humayun's sudden death by a fall at Delhi, consists of a raised platform of brick in lime with a small tank in its centre and a solid masonry *takht* (platform) on one side behind the tank while steps lead up to the lower platform on three sides. Both the lower platform and the upper *takht* had suffered considerable damage during the course of centuries and several stone posts of the wire fencing, erected as a protection had been broken, so that the fencing had ceased to be of any use. The platform and *takht* as also the tank have now been thoroughly repaired with bricks specially made to match the old bricks and plastered over. A concrete apron 8 feet wide has also been provided all round the platform and the missing or broken stone posts replaced.

The SAWI MASJID or "Green Mosque" at Multan is really a Tomb, not a Mosque, belonging to the reign of Akbar. It contains several graves in its courtyard at the head of one of which is a large marble slab bearing an inscription in Persian verse, its enclosure walls being once faced with enamelled tiles bearing moral adages also in Persian verse. All these inscriptions are written in Nastaliq characters and this is one of the few buildings in the Punjab where one finds Nastaliq writings and enamelled tiles of Akbar's time. Another characteristic of the building is that the entrance gate in the east wall has slightly sloping jambs of the kind one meets with in Hindu temples or in the tombs, etc., of the Tughlaq period. In the west wall is a *mihrab* and a circular tapering minaret stands at either end of the same wall. Before this monument was declared as "protected" the north and south enclosure walls had fallen down (Plate III, *a*) and been repaired in a haphazard manner by the local people. Moreover, houses built in the near vicinity of the building had left on the west and north of it only narrow lanes which the local inhabitants keep in such a filthy condition that it has become necessary to close them altogether. Iron pale fencing was, therefore, erected this year at the south-west and north-east of the monument, and the enclosure walls on north, south and east, which were sufficiently low to allow of boys jumping over them have been raised (Plate III, *c*). Old tiles lying about

in the courtyard have been refixed as far as possible in their appropriate positions, the entrance provided with a door, and an old enamelled *jali* reset in position. The decayed face masonry of the *mihrab* and of the jambs of the entrance gateway has been replaced by new masonry of fine dressed brick-in-lime similar to the original.

The conservation of the monuments at TAXILA is executed under the supervision of the Director General of Archæology in India. For several years past no works of a special nature have been undertaken here, but it was decided that repairs to the stupa at *Mohra Moradu* (from which the row of stucco figures on its south have already been removed to the Museum) were urgent and steps were, therefore, taken to start conservation measures, which this year consisted chiefly in repairs to the north and west façades and filling in and making watertight the vertical shaft across the dome of the structure dug by former explorers in search of relics (Plate IV *a* and *b*). Both lime and cement mortar has had to be used in the repairs, but it was not allowed to show on the face of the monument, which was originally constructed without mortar.

The annual repair works in the Lahore Fort included repairs to the dressed brick facing of the north bastion which was made to match the original, constructing a pathway at the back or outside the east side of the Diwan-i-Am court; preparing the ground for lawns along the same side, restoring the plaster panels in the north wall of the Moti Masjid quadrangle, retarring the road-way leading from the entrance gate of the Fort up to the western entrance of the Diwan-i-Am court, some underpinning of the rampart wall near the east and west gates, covering the large well to the south of Moti Masjid with bars in an angle iron frame and constructing a drain near the Fort entrance.

At JAHANGIR'S TOMB, SHAHDARA, besides minor repairs to various parts of the monument consisting chiefly of pointing joints of old brickwork, the marble facing of the cupola covering the south-west minar, which had been damaged by the roots of a *pipal* tree, was dismantled and reset after the roots had been entirely removed from the masonry, and open joints in its *chhajja*, etc., were filled in with white cement. A loose stone in the voussoir of the central arch on the west façade of the mausoleum and a few adjoining pieces of marble stone were either reset or restored, and the marble flooring or roof over the central dome of the grave chamber was taken up and reset in cement mortar in order to stop 'sweating' and to save the inside plaster decoration of the dome from threatened damage. At the *Akbari Sarai* to the west of the mausoleum of Jahangir the six compartments to south of the Mosque still requiring conservation measures were repaired in a similar manner to the previous ones by underpinning the larger holes, and replacing later mud masonry by country bricks in lime mortar. Owing to an accident and in order to avoid similar accidents in future, the well near *Asaf Khan's tomb*, which is no longer required for irrigation purposes, has been filled in with earth.

In the BARADARI OF MIRZA KAMRAN the old decayed concrete of the floors of the south-west and north-west octagonal rooms and of the roof was picked up and replaced by good fresh lime concrete. This Baradari is the earliest Mughal

structure in Lahore and as such the planning of the garden attached to it, the greater part of which has not yet been exposed to view. may perhaps be found to be the prototype of the Mughal gardens in India.

The bulging north-east retaining wall of the octagonal platform upon which the TOMB OF ALI MARDAN KHAN stands was dismantled and rebuilt with country bricks in lime.

The buildings in the SHALAMAR GARDEN received the usual attention. All the buildings were distempered, the channels and tanks were cleared of silt and patch repairs required here and there were carried out. The concrete floor and side walls of the water channels under the stone pavement of the central pavilion on the first terrace had decayed with the result that water percolated into the masonry of the adjoining walls of the pavilion and endangered their stability. To stop further damage the old pavement, the concrete flooring and walls of the channels underneath were all dismantled and restored. Some of the old stones were used again, but a large number of them had to be replaced by new ones.

In the Baradari in the centre of the HIRAN MINAR TANK IN THE SHEIKHUPURA DISTRICT the treads of a stairway leading up to the second floor were paved with stone slabs, stone *parnalas* (water spouts) were provided at the first floor level, and the roof of the second floor was paved with Agra stone instead of the decayed concrete flooring.

In the Hissar District several patches of decayed rubble masonry and brick fillings in the west wall of the PALACE OF FEROZ SHAH AT HISSAR were taken down and rebuilt. Hollow joints were grouted and open ones pointed and a cracked stone lintel was replaced by a new one. The old decayed floor in the prayer chamber of LAT-KI-MASJID near the Palace at Hissar was picked up and relaid with fresh lime concrete. Stone guards were fixed against the piers of the *Barsi Gate at Hansi* in the same District, and the loose brick-in-mud masonry of the north wall of *Humayun's Mosque at Fatehabad* was pulled down and rebuilt in lime.

The bulging masonry of the left retaining wall of CHHAJJU MAL'S BAOLI AT KAITHAL in the Karnal District was removed and rebuilt with country bricks in lime and the base of a Kos Minar near Mohri Railway Station, which had been eaten away by saltpetre—making the minar look like a toad-stool—was underpinned. Some decayed patches in the Badshahi Bridge on the Grand Trunk Road and in the GATEWAYS OF THE SARAI AT GHARAUNDA in the same district were restored; and considerable pointing and underpinning was done at the TOMB OF IBRAHIM LODHI AT PANIPAT. The largest work in this District was undertaken at SHEIKH CHILLI'S TOMB AT THANESAR where the decayed concrete on the roof of the Chhota Maqbara was removed and fresh lime concrete laid instead; the whole of the marble flooring above the plinth, which had become loose and dislodged, was taken up and reset in cement mortar, and a few decayed patches of brick-work in the plinth wall were rebuilt.

The annual repairs to the Buddhist remains at TAKHT-I-BAHI AND JAMALGARH, in the Peshawar District, consisted chiefly of the maintenance of the approach

paths to those monuments. These paths have a very steep gradient in many places and parts of that at Takht-i-Bahi used to be washed away every year. A few *pucca* drains have therefore been provided this year across the path at intervals, and it is hoped that this precaution will reduce the annual damage and consequently the recurring expenditure on its upkeep.

At the monastery site at JAULIAN near Taxila a fallen chapel in front of cell No. 27 was restored and a wall which allowed of tresspassers climbing over, was raised. Damage to a stucco figure of the Buddha in the niche of chapel No. 1 caused by the percolation of rain water through the wall behind, was stopped by reconstructing in lime mortar part of the back wall and giving it an outward slope at the top. Special conservation measures were also taken in hand at the stupa at *Mora Morahdu*, situated a mile distant, where bulging walling was dismantled and rebuilt and part of the Superstructure was made watertight. This work was not completed and will be continued next year. With the exception of rebuilding short lengths of walling at *Sirsukh* and *Pipplan* only repairs of a minor nature were carried out at the other monuments in the neighbourhood of Taxila.

GARDENS.

The SHALAMAR GARDENS were kept up to their usual standard throughout the year. Pansy's made a good display in the beds around the central tank during March-April and balsam in October-November. It was not possible to replant any of the rose beds in the centre terrace during the year, but it is hoped a start will be made in August.

Dwarf clerodendron hedges were planted along the border at the foot of the walls at the west end of the SHAHDARA GARDENS. In these borders a new double flowering wall-flower made a good display during March, while phlox occupied the small beds in the sandals. The gardens generally were well maintained.

BENGAL.

By Mr. N. G. Majumdar.

A sum of Rs. 24,256 was spent on conservation in Bengal, of which Rs. 13,721 were spent on annual repairs and maintenance and Rs. 10,535 on special repairs. As usual the conservation of the monument at PAHARPUR, District Rajshahi, was executed by the Archæological Department itself. This consisted in the dismantling and rebuilding of certain portions of walls attacked by saltpetre in the eastern, western and southern antechambers, and the south-east and south-west corners of the central shaft of the Main Temple. Repairs to the south-east corner of the central shaft involved the careful rebuilding of the wall. In the western section of the monastery area, reconstruction was undertaken of the outer facing of the wall of certain cells after dismantling its bulged-out portions and removing the loose masonry. In SATYAPIR BHITA four of the shrines or *vedis* underwent thorough repair.

The work of special repairs entrusted to the Public Works Department at most of the monuments consisted of minor works, such as the provision of boundary pillars and a notice-board to the monument at BAIGRAM, District Dinajpur, a screen wall and an iron railing to the monument at LALBAGH, District Dacca, a cattle-proof wire fencing round the compound of the BASULI TEMPLE, District Birbhum, and a reinforced concrete pillar for a notice-board of the DIBAR PILLAR AT SAPAHAR, District Dinajpur. Certain damage to the walls and arches caused by the earthquake of 1934 to the MINAR AT PANDUA were attended to and additional repairs in connection with the tomb and mosque at *Tribeni* in the Hooghly District were executed during the year. The work of special repairs to the MATH AT KODLA in the Khulna District, which had been taken in hand in the year 1933-34, was completed at a total cost of Rs. 9,344 (Plate IV, *c* and *d*). The missing external facing of walls and mouldings were restored, with rubbed bricks in cement mortar, maintaining the lines of the old work, up to the top of the monument, that is to a height of about 60′ above the plinth. Ornamental brickwork around the arch openings and on the face of walls were restored with plain projected bricks. A reinforced concrete slab, 4 inches thick, with necessary rings, was set up on the top of the monument, covering a hollow space of over 8′ diameter, to prevent the leakage of rain water into the interior. Two expanded metal fixed doors, each fitted on to an angle iron frame, were provided at the southern and western arch openings, and a similar door with locking arrangements was also supplied as well as wove wire fencing to the compound and a cattle-preventing iron gate.

ASSAM.

By Mr. N. G. Majumdar.

In the Province of Assam the total expenditure on conservation was only Rs. 8,336. At GARHGAON in the Sibsagar District, steps were taken to repair certain arches and cracks in the walls, to fill up gaps in masonry with lime concrete and stop leakage in the third storey of the palace. At GAURISAGAR in the same District the pinnacle of the DEBIDOL TEMPLE was restored after dismantling its ruined parts. At a recent inspection of the temple of BISHNUDOL AT JAYSAGAR the roof of the Natmandir and the passage leading to it were found to be badly leaking. The cracks were thoroughly repaired and made watertight during the year and similar repairs were also effected at the *Sibdol* and *Debidol* temples at Jaysagar. Among works of a minor character mention may be made of the construction of boundary pillars for demarcating the lands attached to the ruins at KHASPUR and the provision of wire fencing round the KOBAK AND KHARTONG GROUP of monoliths in the North Cachar Hills. At MAWPYUT in the Khasi and Jaintia Hills District one of the sections of the Megalithic Bridge, which had been washed away by the heavy flood of April 1933, was renovated.

BOMBAY PRESIDENCY AND SIND.

By Mr. Madho Sarup Vats.

In the Western Circle, of the 737 protected ancient monuments, 239 received annual repairs at a cost of Rs. 28,384 and 21 special repairs involving an expenditure of Rs. 14,436. Of these, thirteen annual and three special repair works were executed departmentally under the direct supervision of the Archæological Superintendent, whereas all the remaining works were carried out by the Public Works Department of the Bombay Government. In addition to agency charges amounting to Rs. 2,329 included in the above figures, a sum of Rs. 15,595 had also to be paid to the local Government on account of pay, leave salaries, travelling allowances and pensionary charges of its staff employed on archæological works.

Of the special repair works referred to above, only sixteen need be mentioned: three relate to the Ahmedabad District; two each to the Bijapur and Panch Mahals Districts; one each to the Kolaba, Poona, Sholapur, Belgaum and Dharwar Districts, while in Sind three relate to the Karachi and one to the Larkana District.

The three monuments brought under special repairs in the Ahmedabad District were SIDDI SAYYAD'S MOSQUE and ASTODIA GATE in AHMEDABAD CITY and AZAM KHAN'S PALACE AT RANPUR, a trading town in the same district. At SIDI SAYYAD'S MOSQUE (A.D. 1412), famous for the unrivalled stone tracery of its window panels, the fallen west wall of its court was rebuilt and a wicket gate provided in it at the south-west corner for access to the rear side (Plate V, *a*).

The ASTODIA GATE, one of the eight original gates of Ahmedabad, is a flat roofed structure two bays deep, supported on high arched openings on the north and south. In 1920, the roof of one of the bays was set on fire by rioters thereby causing considerable damage to the arch on the south and the superstructure above. This damage has now been repaired and as a precaution against accidents access to the roof of the gate has been closed at the top from both the narrow staircases on its east and west sides.

The PALACE OF AZAM KHAN, Mughal Viceroy of Gujarat (1635-1642 A.D.) AT RANPUR, which stands on the right or north bank of the Bhadar river, received special attention. All along, that is for a length of 140 feet, its basement (strengthened by a triple convex buttress) including a part of the foundation had been gradually undermined by the river which, at flood time, rises some two feet above the buttressed portion. In such condition, not being structurally safe, its foundation and basement have been repaired after the original with random rubble-in-lime masonry, which has been covered with suitably stained lime plaster (Plate V, *b*). For the proper bonding of the new masonry with the old, cement concrete blocks of an average depth of 4 feet with 6 inches square section have been laid checkwise at horizontal intervals of 5 feet and vertical ones of 2 feet. Side by side with this, some missing stone pillars and lintels of the verandah, projecting on the river side, have been renewed in order to support the overhanging ceiling, and gaps in its floor made good. Cracks in the shattered roof

of the north side *dalans* have been grouted with cement and the roof of the southern half of the western *dalan* rendered watertight by renewing its lime concrete.

At BIJAPUR, the ancient capital of the Adil Shahi dynasty (15th-17th centuries A.D.) special repairs to the Jami Masjid were resumed during the year under report. Several missing or broken stone brackets with the panelled parapet at the north-west corner of the prayer hall have been replaced by new ones in exact imitation of the original design.

At the eleventh century temple, originally dedicated to Śiva but now sacred to Dattatreya, in the village of CHATTARGI in the Sindgi Taluka of Bijapur District extensive repairs were undertaken. All modern masonry pillars, which propped up cracked lintels, have been removed and the broken lintels strengthened by running along their edges angle iron supports painted grey to simulate the colour of stone work. Other repairs so far carried out consisted (1) in the restoration up to the plinth level of the north-east corner of the entrance hall by copying only block mouldings of the original work; (2) in making watertight the roof of the temple after removing from it the load of decayed and fallen material and substituting in its place a new layer of lime concrete, simultaneously restoring in lime mortar missing stones along the edge of the terrace in which an old gargoyle has also been re-fixed in its original position at the north-east corner; and (3) in providing in place of missing stone slabs others of requisite size in the paving of the *mandapa* and treating open joints in the masonry with sunk lime pointing. This work, however, remains in progress and is expected to be completed next year.

CHAMPANER, a small town in the Halol Taluka of the Panch Mahals District, which was once the capital of Mahmud Begarha the independent Sultan of Gujarat (1459-1511 A.D.), was visited by His Excellency the Governor of Bombay on the 21st December, 1935. Besides rendering approaches to all important monuments motorable, thorough clearance of rank vegetation and jungle was carried out from the walls and compounds of various monuments. Much underpinning was done at the KABUTARKHANA (Pigeon House) pavilion situated picturesquely on the BADA TALAO (Plate V, c) besides lime pointing of open joints at this monument as well as at the KHAJURI MASJID and JAMI MASJID, all belonging to the sixteenth century.

Though not in connection with His Excellency the Governor's visit, dangerously bulged out portions of the monument called the Two Brick Minars, situate half a mile south of the Kevda Masjid, had to be taken down both in the interests of safety to the public and also to secure its lower portion from falling with the upper one.

At the famous cave temples at ELEPHANTA IN THE KOLABA DISTRICT, natural causes arising mainly from the action of sea-salts and water have for many decades been adversely reacting on the stability of the sculptures and parts of the rock, which are now showing a number of cracks and lines of leakage.[1] One such crack over the chin of the Destroyer face of the great Trimūrti image in Cave I suddenly increased on the 14th January, 1935, and caused the breaking off at

[1] Please also see page 131 *infra*.

that point of a large fragment of stone, which fell into three pieces, thus causing an ugly gap in this world-famous masterpiece of ancient Indian sculpture (Plate IV, *e*). No time was lost in repairing this gap by employing a sculptor from Bombay city who was able to reset these fragments into their original position. Prior to this, however, a thorough examination of the caves and their sculptures was made by the Archæological Chemist and the Archæological Superintendent with a view to devising effective means of stopping the process of decay referred to above and subsequently the Director General of Archæology in India also visited these caves and after considering the problem of preservation in all its aspects he has further proposed the appointment of a Committee of experts to go into the question of finding the best means of arresting decay in these caves.

The historic residence of the PESHWAS AT POONA called SHANWARWADA or PALACE OF SATURDAY QUARTER (A.D. 1730) now survives in the Fort wall with its bastions, gateways, basements of various buildings and remains of terraced gardens which once adorned this palace. During the year an attempt was made to lay out and improve the lawns by digging out their beds to a greater depth than before and by providing in them a thick layer of pure screened earth which was badly wanting. The lawns in the forecourt, as well as on the front terrace of the main block of buildings having thus been prepared, were planted with *dhoob* grass. The Chaman garden, situated to the north-east of the main block of buildings in front of the Ganapati Mahal, has been completely excavated this year. It is utterly dilapidated, but as its plan and scheme of flower beds with numerous connecting water channels is now quite clear (Plate V, *d*) its restoration is a comparatively easy task. The uneven portion of the *wada* in front of it has also been properly dressed. All this work has been accomplished at a cost of Rs. 580.

To prevent much greater damage to the superstructure of the third gateway of the FORT AT SHOLAPUR, a monument of the fourteenth century, cracked beams of one of the rooms and the sagged and fallen portion of the roof of another room were renewed. Conservation work is in progress and will be completed during the next financial year.

In BELGAUM DISTRICT, the ancient RATTA STONE INSCRIPTION OF SAKA 1075, which was lying in the open, broken in three pieces, has been joined with copper clamps and removed for better preservation to the *maṇḍapa* of the Mahāliṅgeśvara temple at Konnur in the Gokak Taluka.

At GADAG IN THE DHARWAR DISTRICT the small but most ornate shrine of Sarasvatī in the compound of Trikūṭeśvara temple, has been furnished with new teakwood shutters of approved ancient design.

SIND.

At TATTA in the Karachi District three monuments, namely, the tomb north of Mirza Isa Khan's as also that of Nawab Sarfraz Khan on the Makli hill and the Jami Masjid of Shah Jahan in Tatta town were brought under special repairs. An unfinished stone wall of the enclosure of the first named monument was completed up to the height of other walls, the broken lintel of the doorway of this tomb was jacked up and supported on a rolled steel joist, while all open joints

or cracks in the masonry of the walls as well as in the dome of the *chhatri* were thoroughly grouted. At Nawab Sarfraz Khan's tomb, the repairs consisted of rebuilding the fallen portion of a brick wall in lime mortar and renewal of several patches of brick masonry and lime plaster which had been affected by saltpetre.

Saltpetre, too, is the bane of the stately Jami Masjid at Tatta. Up to the dados, plaster on the walls of this mosque both outside and inside has either disappeared or is entirely dead, badly affecting brick masonry also. During the year under report a sum of Rs. 574 was spent on partial renewal of plaster, in filleting the edges of broken lime plaster on the inside, and in grouting cracks in the domes of the prayer hall.

Special repairs carried out during the year at the prehistoric site of MOHENJODARO in the Larkana District comprised (1) filling up the deep trenches around the Kushān Stūpa to prevent accidents, (2) rebuilding and filling up gaps in the walls of the Great Bath and its adjoining rooms and drains with burnt brick in mud mortar, (3) covering, as an experimental measure, the tops of conserved walls of the Buddhist Monastery round the Stūpa with two courses of sundried brick in order to minimise the destructive effect of saltpetre, which is an ever present danger and (4) raising and strengthening the banks of a canal water course at a total cost of Rs. 1,475. Enamelled "protection" notice-boards were also erected at two different parts of the site for the guidance of visitors.

BIHAR AND ORISSA.

By Mr. G. C. Chandra.

A sum of Rs. 19,078 was spent on the conservation of monuments in the Province of Bihar and Orissa.

At NALANDĀ, side by side with the work of excavations attention was paid to the preservation of Monasteries Nos. 9 and 10 in continuation of the works executed at these two buildings last year and a sum of Rs. 4,096 was expended. These buildings had been in a very bad state of preservation, and this year the north, external wall, a portion of the west external wall and a few cells in the west row of Monastery No. 9, the north external wall, a portion of the south external wall, the remaining portions of the cells in the west row and almost all the cells in the east row of Monastery No. 10 were repaired. In carrying out the repairs those walls that had bulged or cracked were dismantled where necessary and their foundations examined, and were then rebuilt in accordance with the original walls adjoining. Suitable tail-bonds were provided at regular intervals of 5 feet or so throughout the whole length of the walls treated, and the external walls were built up in mud mortar with a few courses of brick-in-lime mortar at the height of 3 or 4 feet. In Monastery No. 9, the north external wall was found to be badly damaged and in many places the masonry work was missing from the plinth upwards. Some traces of the entrance gate of this building as well as the two adjacent chambers on the north and south sides were found missing and these were reconstructed strictly in accordance with similar

structures. The most important work done in this Monastery was the making good of the damaged arches which existed *in situ* over the doorways of two cells in the south-west corner and one cell in the north-east corner of the building. These arches are recessed to a depth of about 10" or so, on both faces inside and outside, the recesses being evidently where the wooden lintels originally rested. True arches over doorways have not been discovered previously at Nalandā.

At RAJGIR, in the Patna District, extensive clearance of jungle, etc., was undertaken at MANIYAR MATH, SONBHANDAR and BIMBISĀRA JAIL areas, with a view to exposing the structures properly. Clearance was also done at the GṚIDHRAKŪṬA HILL where the Bimbisāra road and the old caves are situated, and at the old JAIN TEMPLE standing on the top of the VAIBHĀRA HILL.

Clearance at the Bimbisāra jail area has brought to light traces of the stone compound wall on all the four sides, and as the walls are in poor state of preservation, their tops have since been dressed with earth, with a view to their protection. The bastions on either side of the entrance gate of the jail have been repaired.

At the MANIYAR MATH, the later brick staircase on the north front of the main structure received further attention in continuation of the works done there last year: and the landing at the top was also repaired. Repairs to the original stone compound walls on the four sides of the main structure commenced in the previous year were continued. The *Nirmal Kuan* (well) situated to the north of the Maniyar Math area was cleared down to the water level and then properly conserved and a round brick parapet with concrete topping was added on its top. The well, about 45 feet deep, is of very solid construction, its lower portion being a square structure and above cylindrical in form. Besides the above works an approach road connecting the Maniyar Math and the Sonbhandar Cave was partly constructed.

At the SONBHANDAR CAVE area, no special work was done during the year excepting the thorough clearance of jungle all round; and all cracks, etc., at the VAISHṆAVA CAVE adjacent to the Sonbhandar were filled up with lime and cement concrete. On the top of the *Vaibhāra Hill*, the old Digambara Jain temple was further exposed in continuation of the works done in the previous years, and a few more cells were brought to light. Repairs to the damaged cells were carried out and the tops of the walls were made watertight with lime concrete (Plate VI, *d*). Conservation works at this temple will be continued next year. As a result of the clearance at this area, another Jain temple of the Śvetāmbara sect attached to that mentioned above has been brought to light.

A number of Jain sculptures of different sizes and mostly fragmentary were recovered from this area, the most interesting among them being a stone relief (2'1"×1'1"). Two figures, a male and a female with child on lap, being the parents of the *Jina*, bedecked with ornaments and seated on a double-lotus throne (*Viśvapadmāsana*) with the right leg hanging down are shown in meditation under a flowering tree, representing the *Kalpa-vṛiksha* or desire-yielding tree. In the centre of the tree is seen an *Ādi-jina* seated in the attitude of meditation on a lotus throne. Five human figures are seated below the lotus throne in an 'easy'

attitude, one of them touching the foot of the principal figure. The whole scene is a representation, very commonly depicted, of a heavenly scene in the *sushama-sushama* age.

The caves at BARABAR and in the NAGARJUNI HILLS in the Gaya District were attended to during the year and the original level of the courtyard has been exposed to some extent in front of the Lomas Rishi and Sudama caves. It is noticeable from broken marks on the rock surface that there had been on either side of the entrance to the Lomas Rishi cave two seats, which had been removed long before the four caves at Barabar came under the protection of the Archæological Department. The three caves—Lomas Rishi, Sudama and Karan Chaupar—seem to have been originally excavated in a torpedo-shaped hill (Plate VI *a*). Preliminary clearance was in front of the two caves, Vaḍathika and Vapiyaka, in the Nagarjuni hills was undertaken (Plate VI *c*) and outlines of various stūpas, a monastery, a well and other remains have been brought to view near these caves as well as near the Lomas Rishi and Sudama caves.

At PALAMAU, special repairs were carried out to the old and new forts, popularly known as the Betla forts, in Reserved Forest area. The small buttress, erected previously against the end wall of the Nagpuri gate of the new fort, was strengthened by constructing from the bed of the rock surface another buttress against it in the same character. The removal of the huge accumulation of *débris* from the second gate beyond the Nagpuri gate in the new fort and from the gate in the north rampart walls of the old fort resulted in bringing to light the original ground level in front of them. Now the entrance into the old fort is through this latter gate instead of through a gap in the west rampart wall, which has been closed up.

Besides the works mentioned above, special repairs were carried out at the following monuments. At SHER SHAH'S TOMB AT SASSARAM in the Shahabad District the badly worn steps on its north and east sides have now been made secure. Attention was paid to the sculptures known as CHAURASI MUNI at PATHARGHATTA in the Bhagalpur District. Here the accumulation of *débris* from their tops as well as from their bases was removed and arrangements were made for diverting rain-water to the sides instead of allowing it to run over the faces of the sculptures. An ancient cave, which had been damaged by workers for kaolin clay in this hill, was partially cleared, and this resulted in the discovery of a finely moulded coved-ceiling. The cave is assignable to the early Gupta period. Some further sculptures have also been brought to light by the removal of jungle and *débris*, but much remains to be done at this place. Three pillars of the three sheds erected over the colossal images at JAJPUR in the Cuttack District, which had been impeding a proper view of the images, were removed and joists were provided over the openings instead. The huge broken stone image of Bodhisattva Padmapāṇi lying near the above images under another shed, was improved by the removal of the ugly cement plastering from the broken joints. As a preliminary to excavation, jungle was cut down and removed from all round the Buddhist stūpa at KESARIYA in the Champaran District. Clearance work was also undertaken at the old fort at CHANKIGARH in the same District. The base

of the ASOKA PILLAR AT KOLHUA in the MUZAFFARPUR DISTRICT was made secure with cement masonry. The two important groups of caves at KHANDAGIRI in the PURI DISTRICT situated on two different hills, could not be easily inspected owing to the thickness of the jungle and big trees. With the help of the Civil Sub-Divisional Officer at Khurda, the area has now been cleared.

Repairs necessitated by the earthquake were also undertaken at the following four monuments:—(1) Walls and gates in five different sections of the FORT AT MONGHYR; (2) SHAMSHER KHAN'S TOMB AT SHAMSHERNAGAR in the GAYA DISTRICT; (3) Palace buildings within the ROHTAS FORT AT ROHTASGARH in the Shahabad District; (4) MUKHDUM SHAH'S TOMB AT MANER in the Patna District. Only the works on four sections of the walls and gates at Monghyr and those at Shamshernagar and at Rohtasgarh could be completed during the year.

CENTRAL PROVINCES AND BERAR.

By Mr. G. C. Chandra.

A sum of Rs. 11,930 was expended on conservation of protected ancient monuments in the Central Provinces and Berar.

Besides carrying out various repairs of a recurring nature costing Rs. 8,856, twelve special works to the following ancient monuments were undertaken. The jambs and lintels of the DHAMONI GATE AT KHIMLASA in the Saugor District were made secure so that the villagers can safely pass through it, and various items of work were completed at the *Fort at Rahatgarh* in the same District. The stone masonry *bund* of the big tank to the west of the village at SINDKHED in the Buldana District, which used to irrigate the neighbouring low lying fields, had given way at several places and repairs were undertaken with a view to bringing the ancient waterway and sluice into working order again. Minor repairs were carried out at the TEMPLE OF ŚIVA ON THE BUDDHA TANK AT DHAMDA in the Drug District. The condition of the ancient *Caves at Patur* in the Akola District being unsatisfactory, as some stones were threatening to come down and rain water was causing trouble, steps were taken to remedy these defects and also to put up a fence in front of the caves. The rampart walls and the terracing over them of the *Fort at Balapur* in the Akola District were attended to. This place is frequented daily by many people, as the modern court building is situated within the fort area. The beautiful Chhatri overlooking the small river at the same place was also attended to. A collapsed section of the wall of the Dahi Handa gate at the FORT AT AKOLA was repaired. To protect the Chhatri, the toe and revetment walls to the west side of SHAH NAWAZ KHAN'S TOMB AT BURHANPUR in the Nimar District, the course of the small river was slightly diverted by removing boulders from its bed and packing them at the base of the walls. Repairs were undertaken at the two pleasure pavilions (Mahal Gul Ara), the rock-cut dam and the silting tank at GURARA in the same District, and urgent repairs were carried out to the TEMPLE OF MAHANT LAL DAS OF SHEORINARAYAN AT NARAYANPUR in the Raipur District. The pillar of the eastern gateway of the TEMPLE AT ADBHAR in the Bilaspur District, which had been leaning and threatening to collapse, was set right.

MADRAS PRESIDENCY AND COORG.

By Mr. H. H. Khan.

Rs. 24,143 were allotted for the conservation of monuments in the Madras Presidency and a sum of Rs. 300 for works in the Province of Coorg.

As usual the agency of the Public Works Department of the Madras Government with a few minor exceptions was utilised for the execution of works.

Besides the usual annual repairs and some improvements at the HAMPI RUINS, GINGEE FORT AND THE SEVEN PAGODAS, which are the most extensive places of archæological interest in the Circle, special repairs were undertaken at the following places. At GURRAMKONDA in the Chittoor District an important hill fortress built in a commanding position on a huge isolated rock received attention. This Fort had been built by a Pathan Nawab after the fall of Vijayanagar and remained one of the principal Muhammadan strongholds till the fall of Seringapatam in 1799. There are now no buildings of any importance on the top of the hill, but within the Fort enclosure at its foot is a large three storeyed and well preserved palace building (Plate VII *c*) constructed partly of stone masonry and partly of wood, which is being maintained by the Archæological Department. The projecting ornamental *chajja*, had become weathered and unsafe due to saline action, and to preserve it, the chief architectural feature of the monument, the dilapidated masonry and rotten wooden rafters were renewed in many places. The broken and untidy *chunam* floor of the palace was also thoroughly repaired.

During the previous year the conservation of the JAIN TEMPLE AT SULTAN'S BATTERY in the Malabar District, was almost completed, but the temple still remained unprotected from cattle and rain water lodged within the enclosure. With the original stones already available at the site the enclosure wall has been rebuilt to a sufficient height and the uneven paved floor of the open court surrounding the monument has been levelled so as to drain off water to the outside. Similar steps have also been taken at the IRUKALAMMA TEMPLE, which is one of the oldest temples in NELLORE and contains several images and two inscriptions in Telugu, one of which is dated Saka 1285 (A.D. 1363-64).

At GANDIKOTA six miles west of Jammalamadugu in the Cuddapah District, on the summit of a rock that overlooks from a height of some 300 feet the winding Pennar, which has cut its way right through sheer rugged sandstone cliffs, stands a strong hill fortress, once of considerable importance. As the position was the key to the valley, this Fort was originally founded by a chief named Kapa Maharaja, who preceded the Vijayanagar kings, but the Vijayanagar sovereign Harihara is credited with the construction, as it now stands. During its occupation subsequently by the Nawabs of Cuddapah several buildings were added inside the Fort, one of which, the Jumma Masjid (Plate VII *d*) is one of the largest Mosques in the Madras Presidency. It was much dilapidated owing to saline action and the growth of jungle and required early attention to prevent more serious damage later. The Mosque has now been completely freed from jungle

and cracks and crevices in the walls have been grouted and filled in with lime mortar, the masonry wherever disturbed being secured; while the terraced roofs have been rendered watertight with cement plaster. Steps were taken to eradicate jungle, which is a perpetual menace, from the Forts at NAMAKAL, SANKARIDRUG, DINDIGUL AND DANSBORG CASTLE in order to facilitate further measures of repair such as underpinning and the securing of dangerously damaged masonry in walls and battlements.

During the cold weather the Director General of Archæology in India inspected the monuments in CONJEEVERAM, the SEVEN PAGODAS in the Chingleput District, the ASOKA ROCK EDICTS *at* JONNAGIRI in the Kurnool District and the Buddhist remains at Nagarjunakonda in Guntur District and discussed various problems relating to their conservation. To inspect and advise on repairs to privately owned protected temples in use for religious purposes is often a difficult problem particularly in the Madras Presidency, as worshippers and owners who are very orthodox will not allow others than the privileged few inside the premises. The Archæological Department being thus handicapped is unable to deal with the gradual decay of or inappropriate repairs to many such ancient buildings. Although the trustees of some temples have entered into agreements with the Government under the Ancient Monuments Preservation Act to allow any representatives of the Archæological Department to inspect their temples and recommend measures for their repairs whenever necessary and also that they themselves will not carry out any repairs or alterations or additions to their temples without consulting and obtaining the approval of the Archæological Department, experience has shown that little regard is paid to such conditions. As an instance. I may state that even the Director General during his visit to Conjeeveram was refused admission to the inner open court of a protected monument unless he was prepared to pay a sum of Rs. 150 for a purification ceremony. On the occasion of festivals, many of these temples, often of dressed stone, are freely white washed or colour-washed without discrimination and regardless of the beautiful carvings, sculptures and inscriptions, sometimes of great historical interest, that they may possess. Frequently wide alternate red and white vertical stripes carried across mouldings and over sculptures, mar the beautiful architecture features of temples. There are several most magnificent temples, which were once on the list of monuments selected by the Madras Government for conservation. They have not, however, been included in the more recent List of Protected Monuments maintained by the Government of India, as their Trustees refused to enter into agreements as required under the Ancient Monuments Preservation Act. Recently the celebrated Brihadesvara temple at Tanjore has been provided with electric light for illumination purposes and the most modern and ordinary lamp shades and lamp posts have been erected, creating a horrible contrast with the architectural excellence of this fine building. Had the temple authorities cared to consult the Archæological Department, they could have obtained a suitable scheme in keeping with the monument.

In the Province of Coorg only Rs. 300 was spent on the usual annual repairs and maintenance of some half dozen monuments.

RAJPUTANA AND CENTRAL INDIA.

By Mr. H. L. Srivastava.

AJMER.

During the year under review works were satisfactorily carried out at the Ajmer monuments at a cost of Rs. 3,320. They included ordinary conservation measures on *Marble Baradaries* on the *Anasagar Bund*, the provision of wire fencing on the west side of the Badshahi building and improvements to the *Adhai-din-ka Jhonpra* and the *Saheli Bazar*. The Director General of Archæology in India inspected all the important monuments in Ajmer at the end of the year and recommended certain measures for their preservation. With an increased allotment of funds it is hoped to execute most of the special repairs next year.

BHOPAL STATE.

It is gratifying to note that the monuments at *Sanchi*, so ably conserved by Sir John Marshall continue to receive the attention of the Bhopal Durbar. Jungle clearance and the improvement of pathways have been undertaken and short descriptive notices of the monuments including the renderings of the inscriptions have been fixed at suitable places for the benefit of visitors. Repairs to the temple-mosque of Pamika in the *Raisen Fort* were also put in hand during the year.

INDORE STATE.

The JAIN TEMPLES AT UN compare favourably with the Khajuraho group of temples in respect of their architectural design and the elegance of the sculptures on the walls. Besides the main shrine (*garbhagriha*) and the *antarāla* they have a *mandap* with porches on three sides. It is stated that these temples were constructed by one Raja Ballal of Un "who was suffering untold agony from a snake which he had inadvertently swallowed when small and had grown to a considerable size". Despairing of recovering he set out for Benares with the determination of drowning himself in the sacred Ganges. One night his Rani, who had accompanied her lord, overheard a conversation between the snake (a female) in the Raja's stomach and a male snake outside. The male snake informed the snake in the Raja's stomach that her life would not be worth anything if only the Raja knew that if slaked lime were administered she would die, and his troubles cease. The female related that his life would also be of short duration if the Raja knew that if hot oil were poured into his hole he would die and the immense treasures he guarded would fall into his hands. The Rani next morning informed her husband of what she had heard. He ate some lime and was cured, and then sought the hole, killed the snake with hot oil and seized the treasure with which he vowed to build 100 temples, 100 tanks and 100 wells. but only 99 of each were completed, and the deficiency gave the place its name of *Un* "the deficient". The etymological incident is fanciful, but the reason for the name is also worth noting like that pointed out by Rao Bahadur K. N. Dikshit in the Annual Report of the Archæological Survey for the year 1921-22

and cracks and crevices in the walls have been grouted and filled in with lime mortar, the masonry wherever disturbed being secured; while the terraced roofs have been rendered watertight with cement plaster. Steps were taken to eradicate jungle, which is a perpetual menace, from the Forts at NAMAKAL, SANKARIDRUG, DINDIGUL AND DANSBORG CASTLE in order to facilitate further measures of repair such as underpinning and the securing of dangerously damaged masonry in walls and battlements.

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RAJPUTANA AND CENTRAL INDIA.

By Mr. H. L. Srivastava.

AJMER.

During the year under review works were satisfactorily carried out at the Ajmer monuments at a cost of Rs. 3,320. They included ordinary conservation measures on *Marble Baradaries* on the *Anasagar Bund*, the provision of wire fencing on the west side of the Badshahi building and improvements to the *Adhai-din-ka Jhonpra* and the *Saheli Bazar*. The Director General of Archæology in India inspected all the important monuments in Ajmer at the end of the year and recommended certain measures for their preservation. With an increased allotment of funds it is hoped to execute most of the special repairs next year.

BHOPAL STATE.

It is gratifying to note that the monuments at *Sanchi*, so ably conserved by Sir John Marshall continue to receive the attention of the Bhopal Durbar. Jungle clearance and the improvement of pathways have been undertaken and short descriptive notices of the monuments including the renderings of the inscriptions have been fixed at suitable places for the benefit of visitors. Repairs to the temple-mosque of Pamika in the *Raisen Fort* were also put in hand during the year.

INDORE STATE.

The JAIN TEMPLES AT UN compare favourably with the Khajuraho group of temples in respect of their architectural design and the elegance of the sculptures on the walls. Besides the main shrine (*garbhagriha*) and the *antarāla* they have a *mandap* with porches on three sides. It is stated that these temples were constructed by one Raja Ballal of Un "who was suffering untold agony from a snake which he had inadvertently swallowed when small and had grown to a considerable size". Despairing of recovering he set out for Benares with the determination of drowning himself in the sacred Ganges. One night his Rani, who had accompanied her lord, overheard a conversation between the snake (a female) in the Raja's stomach and a male snake outside. The male snake informed the snake in the Raja's stomach that her life would not be worth anything if only the Raja knew that if slaked lime were administered she would die, and his troubles cease. The female related that his life would also be of short duration if the Raja knew that if hot oil were poured into his hole he would die and the immense treasures he guarded would fall into his hands. The Rani next morning informed her husband of what she had heard. He ate some lime and was cured, and then sought the hole, killed the snake with hot oil and seized the treasure with which he vowed to build 100 temples, 100 tanks and 100 wells, but only 99 of each were completed, and the deficiency gave the place its name of *Un* "the deficient". The etymological incident is fanciful, but the reason for the name is also worth noting like that pointed out by Rao Bahadur K. N. Dikshit in the Annual Report of the Archæological Survey for the year 1921-22

in connection with a holy place called *Unakoti* meaning 'one less than a crore'. Historically the temples mostly appear to have been built by the later Parmar Kings of Malwa, and must be ascribed to the 11th and 12th Centuries A.D. Two short inscriptions of the time of King Udayāditya of Malwa (1080 A.D.) and a *Sarpabandha* inscription (in which grammatical terminations are inscribed in serpentine form) are found on the north wall of a temple called Chaubara Dera No. 1.

Mr. R. D. Banerji gave an account of these monuments in the Progress Report of the Western Circle for 1919 and Mr. B. L. Dhama wrote a conservation note on them in 1923. But nothing has been done in the past to preserve them. The Durbar has now, however, sanctioned repairs to the Goaleshwar temple, and it is hoped that the remaining temples will also receive attention in the near future.

There is a series of mounds at Un from which images have been unearthed by mere superficial digging. Efforts are being made on the part of the Durbar to collect all the images and exhibit them at a suitable place. It would certainly repay the labour if excavations are conducted here on scientific lines and the antiquities unearthed systematically preserved in a Museum or sculpture shed on the spot, as at Khajuraho.

Dewas State (Senior and Junior).

The monuments at Sarangpur, which was an important place during the time of the Sultans of Malwa mostly consist of square tombs with open arches on each side. Arched pendentives are constructed across each inside corner bringing the plans above to octagons, from which the domes spring. These tombs have been sadly neglected in the past, with the result that some of them are now past repairs. During the year the Durbar (Junior) sought the advice of the Archæological Department in regard to the conservation and restoration of those monuments that can still be preserved, and it is hoped that work will be put in hand next year.

Dholpur State.

The State of Dholpur abounds in monuments of the Pathan and Moghul periods. but very few relics of Hindu times have survived. Recently a temple dating to the 9th-10th century A.D. situated on the Jogni-Jogna Hill, 28 miles South west of Dholpur, was brought to the notice of the Archæological Department and measures for its restoration and preservation are being taken by the Durbar (Plate VIII *a*).

Udaipur State.

Repairs to the Tower of Victory at Chittorgarh consisted of replacing broken stones by new ones in the lowest storey and making the plinth thoroughly secure. The side walls of the plinth together with the stairs have been satisfactorily repaired. An attempt was being made to imitate and restore the sculptures and reliefs on the slabs in the new work, but as this meant the destruction of the artistic and historic interest of the original tower, the work has been stopped at

the instance of the Archæological Survey. The Durbar has also started repairs to the *shikhara* of the MOKALJI TEMPLE.

DHAR STATE.

It is gratifying to report that the monuments in Dhar State continue to receive the most careful attention of the Durbar, who have spent Rs. 8,281 this year.

At MANDU repairs for the most part were undertaken at the Water Palace and the Jahaz Mahal. At the former, gaps in the walls both inside and outside were repaired, several cracks in the ceiling were grouted with cement and the roof was made watertight; parapet walls of brick-in-lime were repaired and the displaced coping was set right; masonry and the floor on the top landing was repaired; missing door lintels were replaced; the edging of the twelve-sided fountain, the gangway and one of the boat approaches were repaired and the steps at the entrance were restored. At the Jahaz Mahal, the north wall of the west wing, which had fallen endangering the superstructure above, was repaired, and the missing masonry pillar on the north-west was rebuilt. Broken masonry was underpinned. In the courtyard, the underground *tankas* or circular water reservoirs were cleared of débris and the compound was levelled and properly drained. Other buildings that received attention during the year in the matter of petty repairs and jungle clearance were the KAPOOR TANK, CHHAPPAN MAHAL, EKTHAMBA MAHAL, CHAMPA BAODI, ADHAR GHUMACH, EXECUTION WELL, BHOJ KUND AND THE SARAI IN THE NILKANTHA VALLEY; the last named has recently been brought on to the conservation list.

At SADALPUR, the openings of the floor of the Water Palace were filled up with dry boulders and *murum* to save the building from further damage. No conservation was undertaken at the monuments at Dhar.

About 250 antiquities consisting of sculptures, inscriptions, inscribed images, enamels, pottery, glass and broken weapons, which were mostly found in the removal of débris near the Lohari Gate have been listed.

During the year conservation works are reported to have been in progress in the States of Bikaner, Kotah, Jaipur and Jodhpur in the Rajputana Agency and in Datia in the Central India Agency.

BURMA.

By M. Charles Duroiselle.

The expenditure in the Burma Circle amounted to Rs. 37,000 including agency charges which accounted for about 50 per cent. of the whole cost.

The special repairs carried out by the Public Works Department consisted in (1) constructing a shed over the CHINESE INSCRIPTION STONE found near the SHWEHINTHA PAGODA AT MYOTHIT, Bhamo District, (2) executing urgent repairs to the East Audience Hall of the PALACE BUILDINGS AT MANDALAY, and (3) preserving the remains of a SCULPTURED WALL known as SINDAT-MYINDAT AT ZOKETHOKE, BILIN TOWNSHIP, Thaton District.

The CHINESE INSCRIPTION STONE AT MYOTHIT was discovered in the year 1929-30 and is of great historical value. It is a contemporary record of an event that took place near the Sino-Burmese frontier in the year 1584-85 A.D. It was at first proposed to remove the stone to Bhamo, so that it might be easily accessible to scholars, but owing to its fragile nature, which would not permit of its transit without injury, it was finally decided to preserve it *in situ* and to build a shed over it. The shed now erected measures 10'×8' and has a corrugated iron roof and an American wire fencing with a wooden gate.

The EAST AUDIENCE HALL OF THE PALACE AT MANDALAY is one of the principal and most important of the buildings forming the Palace and is used occasionally for official functions by the Government of Burma. It is an open rectangular Hall measuring 253 feet from North to South and 35 feet from East to West with multiple roofs supported by massive teak-wood posts. Twenty-two of these posts or columns were found to have sunk considerably, owing to their bases having completely rotted, and in order to save the building from sudden collapse, an estimate providing for jacking up the posts and underpinning them with masonry footings and levelling the whole structure was prepared and sanctioned. The work has been put in hand and (as the full amount of funds was not available this year) repairs to only eighteen of the sunken posts and levelling the building could be done; the work will be continued and completed during the year 1936-37. It may be noted in passing that an appreciable number of the posts in this Hall have had to be similarly treated in previous years, and that the steady decay of these majestic old posts constitutes considerable danger to the Palace.

The SCULPTURED WALL AT ZOKETHOKE was discovered or rather re-discovered during the year 1934-35, for the late Mr. Taw Sein Ko, formerly Honorary Archæologist to the Burma Government, had come across it in 1891; but nothing seems to have been done at that time towards its preservation. For a detailed description of it reference is invited to the report for the year 1934-35. During the year initial steps were taken in clearing the vegetation creeping over it and the jungle and plants surrounding it for a distance of 25 feet on every side and in filling up the holes found in the glacis abutting it behind. The idea is to preserve the wall as an old landmark in the ancient history of the locality. There is no intention of restoring any portion of it, much less the sculptures, but to stave off its decay by regular weeding.

The major portion of the expenditure under the head Annual Repairs was incurred as usual, at Mandalay and Pagan. At the former a sum of Rs. 2,960 excluding agency charges was expended on the Palace; the work undertaken consisted in replacing the rotten posts and joists of the floor of the King's Private Apartments by new sound ones; executing repairs to the South Dedicating Pyatthat, and providing masonry footings to four of the teak-wood posts and relaying the stone flag floor, which had sunk in many places, of the Lily Throne Room. A retaining wall which had collapsed was also rebuilt, and patch repairs to the plaster work of the main enclosure wall was executed; earth-oiling and red-ochring of roofs were also carried out. The Pyatthats on the Fort Walls received their due share of attention and cost Rs. 3,995 excluding agency charges.

Four of them, namely, Pyatthats Nos. 6, 13, 14 and 18, had their roofs thoroughly repaired, and decayed rafters and plank roofing renewed; three Pyatthats, Nos. 6, 18 and 30, had their posts provided with cement concrete footings where necessary, while the roofs of all the Pyatthats were earth-oiled. The gardens on the Palace platform consumed Rs. 3,948 excluding agency charges. The usual garden staff and the motor mechanic were maintained throughout the year for the upkeep of the lawns, shrubs, etc., but extremely heavy rains in October and November 1935 ruined most of the winter flowering seedlings and the winter flowers were poor and late, like most other gardens in Mandalay.

At PAGAN, the monuments having been built of more durable material, namely, brick, once they have been put into a state of thorough repair need only a little and regular yearly attention. Thus, of the forty-three Central protected monuments at this old capital, only three, *viz.*, the KUBYAUKKYI TEMPLE, the SHWESANDAW PAGODA and the DAMAYANGYI TEMPLE at which special repairs could not be undertaken in the past for want of sufficient funds have needed much attention, and the repairs necessary to them have been gradually taken in hand during the past four or five years with such funds as were available out of the annual grants for the maintenance of the monuments there. During the year a sum of Rs. 170 was spent on the Kubyaukkyi Temple; the work undertaken consisted in repairing, with Burmese brickwork in lime mortar, the stūpas on the north-east and south-east corners of the main building and fixing ½″ wire netting with wood frames to a wall covered with paintings in the main building so as to prevent the nesting of bats and the consequent spoiling of the paintings. At the Shwesandaw Pagoda repairs with brickwork in lime mortar were carried out to the terraces after the removal from them of earth, broken bricks, débris, etc., which had accumulated thereon in the course of years; the upper three terraces and top of the Pagoda were grouted with cement, surki and stone powder to make the building watertight at a cost of Rs. 2,399. The work on the Dhammayangyi Temple comprised the repair with brickwork of the corner stūpas on the upper terrace of the main building, the north entrance of the enclosure wall and the enclosure wall itself on the south side, at a cost of Rs. 1,399 while in addition to this expenditure Rs. 621 was spent as the wages of coolies employed in removing all the débris under which the upper terraces of the monument were practically buried, filling up the depressions in the compound and levelling the ground round the building. In the course of clearing the débris from the upper terrace on the north face, there were recovered from amongst the rubbish the following objects which were forwarded by the Public Works Department Officer in charge of the conservation works at Pagan to the Archæological Superintendent.

(1) A bronze image of the Buddha in the round seated in the adamantine pose with the right hand in the *bhūmisparsa mudrā* and the left placed in the lap, palm upwards, on a throne measuring nearly 2″ in height and flanked by two disciples who may be identified with Sāriputtā and Moggallāna. The latter are placed on lower seats with single legs attached to the sides of the bottom of the Buddha's throne and kneeling in the *namaḥkāra mudra* (Plate VIII, *b*). The

Buddha above the throne measures 4″ in height. On the back of the throne is an inscription in Burmese (Plate VIII. *c*). It reads:—

1. Maṅ Rhwe Tum Ko-
2. ṅ mhu Koma
3. Phurā.

and may be translated:—

1. Maṅ Rhwe Tum ['s] meritorious
2. work. Koma
3. Buddha.

"Maṅ Rhwe Tum" (pronounced Min Shwe Ton) in line 1 is the name of the donor, probably a commoner; "Koma" in line 2, stands for "Gotama". The inscription is not dated, but on palæographical grounds it may belong to the 15th century A.D. to which the technique of the image also points as its probable date.

(2) A bronze image of the Buddha also in the round seated cross-legged in the ordinary earth-touching attitude on a throne measuring 2½″ in height. There are traces of gilding on the image which is 5″ in height above the throne. There is no inscription, but the statuette belongs to the XIVth century A.D. (Plate VIII, *d*).

(3) A bronze image of the Buddha in the round seated cross-legged in the ordinary attitude on a double lotus throne. The head is broken off at the neck to which it fits perfectly. The throne is slightly damaged at the left lower edge of its front. The image is 7″ in height including the throne. There are also traces of gilding. This may be dated also XIVth century A.D.

(4) A bronze figure of a Buddhist monk kneeling on a lotus with the legs folded under his buttock and making an offering of a lotus bud held by the stalk in both hands in front of his face. The figure is 3″ in height including the seat.

(5) A small bronze mould for making images of the *vajrāsana* Buddha; 2″ in height.

The above-mentioned objects have been labelled and deposited in the Pagan Museum.

The annual repairs undertaken by the Public Works Department to the monuments at Kyaukse, Amarapura, Ava, Sagaing, Mingun, Hmawza, Pegu and Syriam, consisted mainly in clearing jungle around the monuments, uprooting trees growing on them and relaying the bricks displaced thereby in lime mortar; replacing and renewing missing and decayed brickwork; cement grouting, replastering and re-whitewashing where these were found to be necessary, and renewing decayed woodwork in some masonry temples. The expenditure incurred on each monument varied from Rs. 249 to Rs. 5. Caretakers were entertained to look after the Royal Tombs and remains of Bodawpaya's Palace at Amarapura and the monuments at Mingun, Sagaing and Ava.

The expenditure by the Archæological Department consisted chiefly in maintaining work-charged establishments of durwans and sweepers at the Palace, Mandalay, at a cost of Rs. 3.623, a caretaker at the Taungthaman Kyauktawgyi Temple and the inscription shed near the Patodawgyi Pagoda at Amarapura and a durwan to look after the ancient monuments and antiquities at Hmawza.

SECTION II.—EXPLORATION AND RESEARCH.

EXCAVATION AT TAXILA.

By Mr. A. D. Siddiqi.

During the year under report, the excavations were resumed at the Dharmarajika Stupa site for about four months. Very few minor antiquities of any importance were discovered but of structural importance several monuments were laid bare. The north-west portion of the monastery that still remained to be examined was laid bare and the layout of the entire monastic buildings, probably the largest in Taxila was exposed.

The site of the excavations under review was overladen with débris and spoil earth from the previous diggings and it was necessary to move them before an examination of the underlying strata could be undertaken. This court of cells appears to be closely related to the Main Dharmarajika Stupa at this site. The semi-ashlar style of masonry typical of the late Kushan period found in the subsequent restoration of the main Stupa, points to the time of the Kushan King Vasudeva as the period of its construction.

This is further corroborated by the discovery of a big deposit of 531 copper coins in a small earthen jar from cell No. 16 of the monastery. Except for a single coin of Kanishka, the entire hoard consists of coins of Vāsudeva. A small copper casket picked up from the débris of the stupa on the north also yielded 5 copper coins of Vāsudeva. All this evidence affords ample testimony to the fact that the monastery was built in the 3rd century A.D. probably during the reign of Vāsudeva.

The area excavated this year lies on the north and the north-west of the complex of buildings exposed last year (Plate X, *c* and *d*). What looked like a pavement made of huge slabs of stones below the foundations of the late walls last year has now proved to be a part of the huge paved plinth of the verandah of this monastery. The entire north row of cells has now been exposed, save a few cells at the eastern end which lie within the unacquired area. On the east only three cells have been exposed, the rest still lying buried underneath the later superimposed monastery on the south-east. The western row of cells has been completely uncovered as also five or six of the southern row.

This court of cells is square in plan, measuring externally about 203 feet each way. Including the four oblong cells at the corners there were 13 cells on each side, one of the rooms on the south apparently serving as a passage into the court. Very little of the superstructure is unfortunately preserved. The cells are narrow and are nearly all of the same dimensions.

The verandah in this court ran around all the sides fronting the cells. Its plinth is about 20 feet wide and about 3′ 3″ higher than the level of the central court. It is paved along the outer edge, to a depth of about 6′ with huge limestone blocks, worn out apparently by long use. The inner edge towards the

cells is very irregular while the front facing the central court is very regular. The paved portion in front was seemingly left exposed and the rest was probably covered by a roof, the pavement being intended to withstand the effect of the storm water. The abundance of charred wood on the verandah plinth and of burnt iron clamps in the court indicates that in roofing the verandah and in the construction of the pillars supporting the roof in front, timber was freely used and joined together by means of the iron clamps.

The open court in the centre is a square measuring 124′ each way. Flights of steps descended into it at all the cardinal points. Of these only two have been exposed one in the centre of the raised plinth on the north and another on the west. Scanty remnants of a pavement of the open court are discernible in a few places, but as usual in Taxila, the floor must have consisted of rammed earth. An outlet for rain water was provided on the west below cell No. 4. The bath room, of which only the heavy pavement is preserved and which was an invariable adjunct to a monastery, occupies the S. E. corner of the court and measures about 16′ 6″ each way. Close to the bath room on its west is a small flight of stairs for descending into the court. The cells of the original monastery on the south and west cannot be completely exposed, as they are partially superimposed by a later monastery.

The remains of a small rectangular stupa of simple design built in the semi-ashlar type have been uncovered in front of the northern flight of steps against the verandah plinth. It measures 12′×10′ with an approach on the south and a north-south expanse, contrary to the general practice in Taxila. Its low plinth survives only to a height of 2′ to 3′. Its core was examined to a depth of 4 feet below the foundation, but no relics were found.

A massive structure abutting on to the north exterior wall of the monastery appears to be a stupa (Plate X, *b*). Unlike other stupas, it has a regularly battered base apparently to support its massive superstructure and it is constructed of huge blocks of stones laid in the semi-ashlar style of masonry. In plan it is nearly square, measuring 40′×38′. The small copper relic casket (No. Dh. 79) referred to above was picked up from the débris on the east of the stupa and may have been left by careless relic hunters. Careful examination has failed to reveal any means of access to the stupa, but it appears probable that it was approached from cell No. 20, in the middle of the north row of the monastery.

Departing from the rule that the usual adjuncts to a monastery, such as the assembly hall, the kitchen and refectory were placed either at the back or on one side of the monastery, it is noteworthy that in the present case they were built in front of the monastery. This was very probably due to the fact that they served the inmates of the monastery, as well as the occupants of other buildings lying on the south. This is indicated by the existence of a wall coeval with the main court of cells as proved by its typical semi-ashlar type of masonry. These adjuncts were approached from the interior of the monastery through a narrow passage lying immediately to the east of the south-west corner cell. Passing through a wide doorway piercing the back wall of the south row of the monastery one enters an open court flanked on the east by a spacious hall of assembly. Its

roof was supported on four columns of which the sandstone bases are still *in situ*. Apparently this was entered alike from W. and E. but there is a wide communicating doorway between the hall No. 2 and the oblong compartment on the East marked 3 in the plan. It was from near the N. wall of No. 3 that a hoard of gold coins (2 of Bhadra, 15 of late Kushan and 2 of Chandra Gupta II) was discovered during 1933-34 which prove the occupation of the place up to the commencement of the fifth century A.D.

The compartments Nos. 5 and 6 and the hall No. 4 now show no evidence of direct communication with No. 2. It is possible they were approached from one of the cells underlying the row of later cells in the S. E. quadrant of the earlier court, but the renovated west wall of hall No. 4 appears to have destroyed the evidence of communication. The regular solid structure with a cornice and flight of steps in front, in squares 20×16′ to 20′ represents a portion of the plinth of the main monastery superimposed by cells of the later monastery.

The following mentionable antiquities were picked up during the course of the excavations:—

1. Dh.′ 35-10. Sq. 33·30′. 6′ B. S. Pot-stone figure of Vishnu (ht. 8·8″) standing with the usual attributes, *viz.* conch shell, discus, club and lotus in the four hands, upper part of Garuda below on the pedestal between two legs, wears elaborate head-dress, ear-pendants, necklace and bangles, etc. Yajnopavita falls over right side of waist from the left shoulder, part of the halo with headed border missing, rather crude workmanship (Plate XI, *a*).
2. Dh.′ 35-79. Sq. 41·22′. 5′ B. S. From débris on the East of T. 1. Pyxis shaped copper casket (Ht. 1·2″) with knob handle in the centre of flat lid. It contained 5 copper coins of Vāsudeva.
3. Dh.′ 35-63. Sq. 36·30′. 7′ B. S. Pot-stone standing figure of Kartikeya (ht. 3·2″), upper portion above knee missing, on the back the figure of a peacock, the vehicle of Kartikeya, is clearly visible, workmanship same as that of Vishnu.
4. Dh.′ 35-64. Sq. 38·30′. 8′ B. S. A big hoard of 531 copper coins found inside a broken earthen pot, consisting of one coin of Kaniksha and 530 of Vāsudeva.
5. Dh.′ 35-100. Sq. 31·24′. 7′ B. S. Stucco head (ht. 4·2″) of a lay attendant with slightly frowning eyes, wears moustache, and fillet band round the curly hair with medallion in front, head turned towards the left, traces of red paint (Plate XI, *b*).
6. Dh.′ 35-94. Sq. 36·22′. Circular flat terracotta skin scraper (dia. 3·6″) of spongy coarse texture, slightly damaged.

EXCAVATION AT HARAPPA.

By Mr. Mohd. Hamid Kuraishi.

Work at this site was confined to the eastern extension of trench I on mound D. and the area excavated measures 143 ft. long from north to south and 18 ft.

in width. The eastern section 10 ft. wide was excavated to an average depth of 7 ft. below surface, the western 6 ft. wide was dug about 3 ft. deep. The excavations brought to light remains of two buildings both in the eastern section. One of them is the corner of a fairly large room of the IVth stratum composed of two well-built walls one of which is supported on a solid rectangular pillar at either end. The other structure is a fragmentary brick pavement of the IInd stratum, alongside which were found two post-cremation troughs with their usual contents of ceremonial offerings.

Among the sixty-seven antiquities that were recovered, four are worth notice, *viz.*, (1) a fragmentary circular terracotta tablet (13201) bearing the stamp of a square seal with the effigy of a composite monster; (2) a perfect specimen of a chank wavy ring (13200) holding a piece of copper rod in the central hole. This shows that such rings, whose sacred character is already well established, were sometimes mounted on metal pieces and carried by people on their person; (3) a leaf-shaped pigmy chert arrow-head which is the only specimen so far discovered at this site; and (4) a complete specimen of a rectangular ivory baluster with linear decoration and a copper attachment at the centre. These so-called balusters or casting bones were apparently occasionally worn as pendants and amulets.

EXPLORATIONS IN KHAIRPUR STATE, SIND.

By Mr. Madho Sarup Vats.

Diji-ji-ṭākri.

Diji-ji-ṭākri is situated on a chert hill in Survey No. 95 of *deh* Chaunro, Tapa Kot Diji of Khairpur *Taluka* and covers an area of 3 acres and 33 gunthas.[1] Quadrilateral in shape, with the longer axis from north to south, it rises 35 to 40 feet above the surrounding ground level. For more than a hundred years, I was told, it has been dug by peasants for the fertilising soil it is believed to contain, such operations having been stopped by the State only since last year. The whole of this mound from the top to the sloping sides is now honeycombed with numerous irregular pits in which the upper stratum discloses a number of rubble walls intersecting one another, so as to indicate narrow lanes (Plate XI, *c*). The bricks in the latest period of occupation are of the usual size, *viz.*, $11'' \times 5\frac{1}{2}'' \times 3''$, though a smaller size, *viz.*, $9\frac{1}{2}'' \times 4\frac{1}{2}'' \times 3''$ is also less commonly found. As compared with the rubble wallings the number of bricks is very small. Sun-dried brick is seen continuously used for raising successive levels of occupation. From the top downwards four to five strata may be noticed by going round excavated holes, and from the lower level of the rock foundation below, it may be estimated that at least another one or two strata may be expected still further down.

The place is littered with plenty of potsherds not infrequently well finished and of shapes not usual at Mohenjo-daro. For instance, many vessels have flat or projected bases (Plate XII, *a*, 7-12) as against the pointed narrow bases of bowls at Mohenjo-daro. Some flat-based ware has, no doubt, been found in the Late

[1] 40 *gunthas* make one acre.

Period of Harappā, but it is exceptional there too. The pottery is washed red, chocolate or white : sometimes the same piece has red slip on one face and chocolate[1] on the other. The paintings, as far as I could see, are in black colour only, and consist of bands, wavy lines, chevrons, fish scale motif, four pointed star-in-circle pattern, etc.

Incised ware, too, which is scarce and confined only to Late Levels both at Mohenjo-daro and Harappā, seems to have been fairly common here. On the inside, three fragments of dishes or pans are incised with a four petalled flower, a spiral groove, and nail mark patterning[2] conventionalised into the form of leafy twigs[3] (Plate XII, *a*, 4-6). One carrot-like cone is also incised with chevrons and dots in the lower part[4] (Plate XII, *a*, 14).

And yet there are things distinctive of the Indus Culture in which a change is hardly noticeable, *viz.*, terracotta cakes, stone balls (Plate XII, *a*, 1 and 2), sherds of long oval vases, of perforated heaters, fragments of cart frames, of terracotta (Plate XII, *a*, 13 and 15-18) and *śankh* bangles, chert balls and flakes.

But for its continuous exploitation, referred to above, this mound would have been worth excavating. That there are multiple strata is obvious, but one thing is clear that should systematic excavation be undertaken, a clean sweep, at any rate, of the three or four upper strata would have to be made in the first instance, without which excavation might only create further confusion.

Koṭāsur Mound.

The Koṭāsur Mound at Nāru-jo-Dhoro lies 2 miles east of Tando Masti Khan Railway Station. Situated on the right bank of a dry *nārā*, it really forms an eastward continuation of the main range of sand-hills which runs here from north to south for a considerable distance (Plate XI, *d*). Roughly T-shaped in appearance, its vertical east-west limb measures approximately 1,100 ft., whereas the transverse north-south limb is about 600 ft. The mound, especially its vertical limb, is strewn over with myriads of potsherds, terracotta bangles of a fairly fine make, numerous pieces of chert in which shapeless blocks were evidently much more common than chert knives (Plate XII, *b*, 9-11), fragments of round and triangular terracotta cakes, some fine carrot-shaped cones (Plate XII, *b*, 14), pieces of pottery cart frames (Plate XII, *b*, 16-17), and some animal toys (Plate XII, *b*, 8). Brickbats, however, were almost completely absent, not more than a few having been noticed altogether. The above finds do not indicate anything more than fugitive traces of a superficial occupation of this natural sand-hill.

Pottery on this site is generally more developed and of a finer fabric than that of Diji-ji-ṭākri ; even sherds of ordinary pots betray good selection and mixing of clay. Several varieties of dishes, some with lips well splayed out (Plate XII, *b* and *d*, 1 and 2), are beautifully polished red or black : the former colour seems to have been more favourite, particularly on the painted examples. Although most of the potsherds are very small, yet it is possible to recognise among them a

[1] This seems to have been one of the favourite colours.

[2] This can be made by means of a split reed semi-circular in section.

[3] Incised patterning at Diji-ji-ṭākri has a certain fineness of its own.

[4] No similarly incised cone has, to my knowledge, been found in the Indus Valley sites.

few jar-stands, perforated heaters (Plate XII, *b*, 7), a knobbed lid (Plate XII, *d*, 20), several bowls (Plate XII, *b*, 4-6) which include some elegant shapes (Plate XII, *c*, 18-19) and round vases with flat projecting bases. The paintings on wares comprise simple bands, wavy lines, chevrons, comb motif (Plate XII, *c*, 23-25), scaly (Plate XII, *c*, 29-30) and cross-hatched patterns (Plate XII, c, 25 and 26), intersecting circles (Plate XII, *c*, 27 and 28), swags ? (Plate XII, *c*, 21 and 22), a conventionalised representation of a tree (Plate XII, *c*, 20), a well-executed *pīpal* (*ficus religiosa*) tree (Plate XII, *c*, 19), and a life-like peahen (Plate XII, *c*, 18) executed with much effect in black on red ground. An example of incised ornamentation is a dish with the nail mark motif[1] (Plate XII, *b*, 3).

Sherds of finer dishes, bowls, vases and some other vessels are of fabric superior to the Mohenjo-daro wares: in fact they approximate the type of the later but strikingly well developed Cemetery H wares from Harappā. That certain older types of wares, painted motifs and other objects (Plate XII, *b*, 7-17) peculiar to Indus sites are found to persist on this mound might well be expected. The presence of chert blocks and a few chert knives can hardly be adduced as an argument in favour of an early date, as this stone is quarried close to the eastern edge of the mound.

A comparative study of potsherds from Diji-ji-ṭākri and Koṭāsur Mound reveals the superiority of the latter in texture, development and painted motifs, which point to a date subsequent to the latest occupation on the former site. Nevertheless, in connection with some of the uncommonly superior sherds from Diji-ji-ṭākri (Plate XII, *a*, 7-11), which may be presumed to have come from the last one or two strata contemporary, perhaps, with the introduction of brick structures on that mound, it is as well to point out that one feels chronologically much nearer to the later site of Koṭāsur than would be warranted by earlier strata in Diji-ji-ṭākri.

EXCAVATIONS AT CHANHU-DARO, SIND.

By the Expedition of the American School of Indic and Iranian Studies and the Boston Museum of Fine Arts, organised by Professor W. Norman Brown and directed in the field by Dr. Ernest Mackay.

The amendment of the Ancient Monuments Act of India, some three years since, to permit outside universities and archæological bodies to excavate in that country gave to the American School of Indic and Iranian Studies and the Boston Museum of Fine Arts the opportunity to carry into effect a long cherished dream. In 1934, Professor W. Norman Brown, President of the former body, visited India and negotiated with the Government of India a concession to excavate the mounds of Chanhu-daro in the Nawabshah District of Sind, to the east of the Indus. Already a preliminary investigation has been made this past winter season, in which I was assisted by several members of the Indian staff formerly at work at Mohenjo-daro, and in the latter half of the season by my wife. The first season's excavations have proved of surprising value. They have produced evidence of

[1] See p. 37 *supra*.

the existence of a culture hitherto only suspected, and they throw considerable new light on the problem of the ancient Indus Valley civilization which at Mohenjo-daro, some eighty miles to the north-west, has in recent years aroused keen interest.

At the level of the surrounding plain the mounds of Chanhu-daro are approximately some nine acres in extent; though beneath the alluvium deposited by the Indus in the ages since they were deserted their extent is considerably greater. They comprise two large mounds and a smaller one, in close proximity to one another, which have rested undisturbed since the place was abandoned some 4,000 years ago until Mr. N. G. Majumdar in the course of a survey of the ancient sites of Sind drew attention to them in 1932. The three trial trenches that he cut produced unmistakeable evidence of the presence of remains contemporary with those of Mohenjo-daro and Harappā—the so-called "Indus Valley civilization". And here I would suggest[1] that this somewhat elastic term be henceforth replaced by "Harappā culture", from the site where first its existence was realized.

In order to ascertain the growth and history of the township that flourished at Chanhu-daro well-nigh throughout the third millennium B.C., the systematic examination of the largest and loftiest mound was begun by removing it layer by layer after an exhaustive examination of each stratum in turn. In all, débris was removed during the season to a depth of some 17 feet all over the mound, and four occupations were unearthed.

In the uppermost stratum the pottery was entirely new to us, save for a few sherds previously found at Jhangar in Sind by Mr. Majumdar. This pottery was hand-made, dark grey ware with incised ornamentation and smooth polished surface. Though well finished, it gives the impression of having been made by a primitive people. No great quantity of it was found, nor were there any habitations or burials associated with it, and we must therefore assume that it was made by a small community—possibly a wandering gypsy-like tribe that lived on the mound for a short period at an, at present, uncertain date. The most striking piece of this ware is a triple, cruet-like vessel, exactly similar in shape to one found by Sir Aurel Stein in South Balūchistān; the latter find differed from it, however, in being painted instead of dark grey ware.

Just below the level at which this grey ware was found and separated from it by a sterile layer of varying thickness, we came upon the potsherds and other remains of a second culture quite different from the one above and the "Harappā culture" beneath. To this I propose to give the name "Jhukar culture", for it was at Jhukar near Larkana in Middle Sind that similar pottery was first discovered. The two strata below that we examined were both Harappā occupations.

To test what we may expect to find lower still, towards the end of the season we dug a great pit in the side of the mound that had already been partly cleared. Some 100 feet square at the surface, it was narrowed by wide steps as we went down till the water-level in the soil was reached. The sides of this pit revealed

[1]This suggestion of Dr. Mackay has not found favour among other scholars, notably Sir Jhon Marshall—Editor.

at least three more occupations below those that we had already examined over a wide area, and it appears not unlikely that the lowest will prove on further examination to antedate the earliest occupations reached at Mohenjo-daro. They also told a history of disastrous floods, following which the town was evidently deserted for periods so long that the walls of the ruined buildings were completely lost beneath accumulated débris; they were not re-used as foundations, as was the case after the floods at Mohenjo-daro. Unfortunately, at Chanhu-daro as at Mohenjo-daro, the presence of seepage water from the Indus at a higher level than in ancient times precludes the examination of still earlier occupations without installing costly pumping plant. The lowest occupation attained is obviously the heir to a long period of development; and whether that took place in the Indus valley or elsewhere remains for the present an unanswered question.

The discovery that the peoples of the two uppermost strata were alien to the Harappā culture and to each other is an important advance in the study of the dark period, some thousand years in duration, between the decline of the Harappā culture and the coming of the Aryan-speaking peoples. The painted pottery of the unknown people of the Jhukar culture in the second stratum down shows little or no affinity with the earlier Harappā ware found in the two strata below; both in the designs upon it, its fabric, and the fact that much of it was painted in in polychrome, it marks an entirely different civilization. True, sporadic examples of polychrome ware have been found in the upper levels of Mohenjo-daro, but they are quite different from that of the second highest level at Chanhu-daro. A remarkable proportion of the potsherds of this new people were fragments of the pans of offering-stands, vessels that seem to have been more largely used by them than by the people of the Harappā culture. The colours chiefly used were a purplish-brown or purplish-black paint on a cherry-red or cream slip, the designs almost invariably being conventional and in registers separated by broad bands of light or dark red, edged by the darker colour. Occasionally, red and black were used together on a cream ground—frequently in a chevron pattern—bordered above and below by a wide band of red. A similar use of red and black paints in a chevron design is seen on an interesting sherd found by Sir Aurel Stein at Zayak in southern Balūchistān. This use of red and black together in association with red bands to separate the registers recalls the much earlier Tell Halaf ware, though in other respects these wares have little in common.

A few of the dwelling-places of this unknown people were found, simple houses constructed of burnt bricks dug up from the occupations below or from other mounds. But some of their dwellings had clearly been made of matting or adobe, for whereas brick buildings were found only on the western side of the mound elsewhere there were numbers of brick-built fireplaces and roughly laid pavements, from round which the walls had entirely disappeared. The brick houses evidently belonged to the wealthier members of the little community that inhabited the upper part of the mounds. But despite their considerable elevation, some fifteen feet above the present level of the plain, even these houses showed the effects of settlement due to flooding—so much so, indeed, that several walls had to be removed to safeguard the diggers as they cleared out the rooms.

he people who brought this culture seem to have arrived fairly soon after the desertion of the mound by the Harappā people, and in their turn they had to leave after only a short occupation, for the Indus threatened to wash away their homes altogether. Indeed, the river, or a branch of it, actually cut through the town, dividing it into three portions now represented by the separate mounds. The finding of similar ware to theirs in Baluchistan suggests that they entered India from the north-west and further exploration in the former country should easily settle this point. The remains of the new culture introduced by them include, in addition to their pottery, a bronze socketed axe, copper hair-pins with coiled heads, pottery seal-amulets, and other articles quite unlike anything left by the earlier Harappā people. A finely-painted head-rest of pottery, with bold designs in purplish-red on a bright red slip and further ornamented with cut out sides, is an entirely new find in India. Though, to judge from their houses the people of this Jhukar culture were not a wealthy people, none the less they were capable of producing fine handiwork. That basket-working was also one of their handicrafts is indicated by the number of square-edged bone awls that they left in the vicinity of their habitations. Curiously enough, the shapes and the designs upon the seals suggest Syro-Cappadocian influence; but Chanhu-daro is a long and difficult journey from the Near East and the resemblance should perhaps at present only be regarded as fortuitous.

No inscriptions were found in the Jhukar level, but it does not follow that they will not be found in the course of more extensive excavations; the community that lived at Chanhu-daro was quite small numerically, nor was it established there for long. The Harappā occupations below, of which we have completely excavated two, were not in continuity as at Mohenjo-daro. Not a single wall of the upper occupation was built on another below it as foundation, as is so commonly the case at the latter site; though it is certain that the people of these two strata were the same, a definite layer of sterile soil separated their buildings. These two occupations are slightly earlier in date than the uppermost levels at Mohenjo-daro, but there is reason to believe that the other large mound—as yet only tentatively examined—was in occupation up to the end of the Mohenjo-daro period, for the pottery of the Harappā culture found near its summit is distinctly later in type.

Throughout the Harappā period, Chanhu-daro was a great bead-manufacturing centre. We have found large numbers in all stages of manufacture, from the agate and carnelian nodules from which they were made to the completed beads. Curiously enough, comparatively few finished beads were found; they were evidently traded, or taken away when the town was deserted. A particularly interesting find was a number of drills made of blackish chert, in appearance resembling the graphite of lead pencils. We now know how the stone beads of the ancients were bored. These chert drills are of the same hardness as the stones from which the beads were made, and, this being so, some abrasive such as quartz or emery must have been used with them.

A very common type of bead was the barrel-cylinder, some two to three inches long. These beads were made by splitting a nodule of agate or carnelian

into rectangular slips, from which the angles were removed by secondary flaking. The slips were then ground into their final shape by rubbing them to and fro on a sandstone block, after which they were pierced. Bead blocks, and drills, and fragments of stones were found in a number of the houses. Some of the beads made of steatite were astonishingly small; a quantity that had been kept for safety in a small jar when placed end to end ran to forty to an inch. Their holes were so tiny that they could only have been threaded on a hair, and how these beads were made and bored is hard to comprehend.

Copper and bronze objects—various utensils, adzes, axes, knives, chisels, daggers, hair-pins, razors—were found in plenty. Of particular interest was a large scoop, evidently used for grain and exactly resembling a modern coal-scoop in shape. Two little toy carts are charming objects. One, with solid wheels complete and the driver seated in front holding a stick or whip, had unfortunately been badly bent, probably by the child that played with it. The other is a village cart, with a pent-roof canopy but unluckily without its wheels. Carts of both types are to be seen in India to-day, a survival through 4,500 years or more.

Judging from the unusual number of toys that were found, it would seem that Chanhu-daro was a centre for the manufacture of articles of this class, as well as of beads and objects made of copper and bronze. Gaily decorated pottery rattles, whistles shaped like hens, model carts of pottery in various shapes, together with the little humped oxen that drew them, are exceedingly common —much too many in number to have been only the toys of the children of the little city; they probably supplied the wants of other places, such as Mohenjo-daro, over a very wide area. Nor is it unlikely that the beads at least were exported to Kish and Ur and other Sumerian cities, where exactly similar beads have been found in such small numbers as probably to have been imported. The town lay close to the once important trade-route across the Kirthar Range into Balūchistān near the modern town of Sehwan, and it is reasonable to assume that its products went that way.

Of gamesmen used by adults we found but few examples at Chanhu-daro, which may indicate that there were fewer people of leisure than among the wealthier community of Mohenjo-daro, where gamesmen and dice were found in plenty.

The very considerable number of weights unearthed suggests that these also were locally manufactured. Most are cubical in shape and their ratios are the same as at Mohenjo-daro and Harappā, to which cities it is possible that they were supplied by the makers at Chanhu-daro. The finish of many of these weights was so perfect that it seems likely that they served for testing purposes in the manufacture of others.

Many of the pottery figurines from Chanhu-daro are represented as seated, as they appear to have been fastened on something—perhaps the little model carts, on many of which there are oval marks as of something now missing. The female figurines are of a different type from those found at Mohenjo-daro and Harappā. They have not the elaborate head-dresses of the figurines of these two cities, though like them they are plentifully adorned with jewellery. A feature

common to most of the female figurines is that they are legless; they terminate below in a wide base that is hollow. Sir Aurel Stein has found at Mehi-ḍamb in South Balūchistān figurines that terminate just below the waist, but are solid throughout.

The provenance of a pottery head of peculiar interest is as yet uncertain. It was found close to the edge of the mound where it may have rolled down from above, and as nothing like it has been found either at Mohenjo-daro or Harappā I am inclined to think that it was made by the people of the Jhukar culture. The very large, deeply set eyes and small mouth in conjunction with the shaven head suggest Sumerian influence. The nose which would have been a deciding factor is unfortunately missing; but the very fact that it was broken off without injury being done to eyes and mouth suggests that it was the large and prominent feature that we associate with the typical Sumerian statue head.

A sidelight on the customs of Chanhu-daro is provided by the number of kohl-jars that have been found containing paint for the adornment of the eyes; quite possibly kohl was used by both sexes, for it was probably then as now supposed also to have medicinal properties. Possibly destined exclusively for feminine use were the number of little pottery toilet tables, or rather stands, on four short legs, that were found, each with its upper surface ornamented with simple painted lines. A small stick of rouge with one end bevelled by much use surely gave colour to the lips or cheeks of some fair inhabitant of the city.

The large number of seal-amulets from the Harappā levels were very like those from the contemporary cities. Mostly square, they bear engraved figures of the usual animal portrayed with one horn, the bison, the elephant and the tiger. A very spirited bull is trampling a man beneath his feet. Several unfinished seal-amulets show that they also were made at Chanhu-daro and not imported.

Model animals were somewhat scarce and of no great variety. Some humped bulls are shown by the holes that pierce their shoulders to have been the draught animals of the model carts. Other model animals, some of which are evidently imaginary creatures, were made to be fitted with wheels and drawn along by a cord, like the figures of rams found both at Chanhu-daro and the other Indus cities.

The buildings of the Harappā period were quite substantial structures, but all had suffered badly from brick-robbing. During the several periods when the site was deserted bricks were evidently removed for use elsewhere; and whenever it was re-occupied, whether fresh bricks were made or not, many were dug up from the lower levels. Very much the same sizes of bricks were used as at Mohenjo-daro. One very massive retaining wall, which we came upon when trenching the flat ground on the northern side of the mound before dumping there, was 80 feet long, N.-S., and over five feet wide, despite having been despoiled anciently for bricks. It evidently formed part of a large and important building, for the nearer end turned at right angles beneath the tomb of a Muhammadan saint where we could not follow it. At the outer end it terminated abruptly where one would have expected the town wall—if it ever existed—to run at right angles to it.

As at Mohenjo-daro, practically every house had its bathroom and latrine and the drainage system was as well planned. A number of pottery drain-pipes, some of which were found *in situ*, testify to expert sanitation.

A curious, but very delapidated building in the second Harappā level from the top is perhaps the remains of a *hammām* or bath with hypocaust beneath. Along its southern side was a row of five openings, each 8 ins. high and 5½ ins. wide, giving on to flues which ran a distance of over five feet, beyond which we could no longer trace them owing to brick robbing. These flues communicated with others at right angles, whose vent-holes opened on the western side of the building. Above the flues and separated from them only by the thickness of one brick were small compartments which may have been sweating-rooms. A somewhat similar building is also known at Mohenjo-daro.

No traces of walls or fortifications have as yet been found; nor were many warlike weapons unearthed. As was the case with Mohenjo-daro the people of Chanhu-daro had little to trouble them except the unruly Indus which turned them out of house and home several times during the history of the little city; indeed, it finally nearly swept it entirely away, thus leading to its permanent abandonment. To-day the river is twelve miles distant, but there is an ancient river bed only three miles away, and when this was being cut the water must have extended for miles on either side.

The lower levels of Mound II already partially excavated need thorough investigation, and the adjacent Mound I which is nearly as large and practically untouched should yield a great deal of important material and information. The Jhukar culture needs further interpretation. Nor do we know as yet what became of the people of the Harappā culture when the large cities in which they lived had to be abandoned; it is difficult to believe that this culture entirely disappeared leaving no trace of its once widespread existence. That it was followed at Chanhu-daro and other ancient sites in Sind by the Jhukar culture is now quite certain; and where the latter people came from, how long their sojourn in Sind, and the extent of their influence we trust that further work at Chanhu-daro and other sites will tell us.

EXPLORATIONS IN UNITED PROVINCES.

By Dr. K. A. A. Ansari.

In pursuance of the scheme to bring all important ancient sites in United Provinces under the operation of the Ancient Monuments Preservation Act, it was decided to obtain information in respect of them. An enquiry was, therefore, made from the District Officers of the United Provinces and in that connection, 30 sites in the Districts of Bijnor, Dehra Dun and Saharanpur were inspected and rough sketch plans and photographs thereof prepared. A brief report on those sites is given below.

Bijnor District.

1. *Patharvala Kuan* (well) situated at Mandavar. It seems to belong to the Mediæval period, as indicated by the upper portion of its steening, but it was

repaired during the early Pathan period, when the neighbouring Mosque was constructed with the material from Hindu temple. This well, though not of much architectural interest, is protected under the Ancient Monuments Preservation Act for its antiquity.

2. *Barmih-ka-Khera.* About $1\frac{1}{2}$ miles from village Barkatpur is an ancient site known as Barmih-ka-Khera close to the railway bridge over the Ganges between Balawali and Raisi railway stations. The most convenient way of approaching the site is by motor from Bijnor *viâ* Mandawar and Barkatpur. The river Ganges has encroached upon the site as landslides along its left bank are noticeable. The site must have originally extended to a considerable distance towards the west, but this portion must have been washed away by the Ganges.

Bricks about $2\frac{1}{2}$ inches in thickness were seen in the heaps of landslides. It is stated that the villagers obtain earthen pots after the rains. A structure described by the villagers as a solid well was destroyed and its bricks utilized in the construction of a wall of the mosque in the village. The so-called wells were probably stupas or burials, inasmuch as they are said to have contained pots. One of these was found fallen into the Ganges bed and containing a number of earthen pots. Another structure of the same type thickly overgrown with vegetation is still traceable and is deserving of close inspection.

A few finds (Plate XIV, *a*) were obtained from the denuded portion of the mound. Heavy bricks could not, however, be removed owing to the steepness of the bank and the rise of the river.

No. 1 is a fragmentary wide-mouthed pot with incised line all around.

No. 2 is a handled pottery offering stand or incense burner.

Nos. 3 to 5 are pottery dishes.

The offering stand may belong to the Kushan period, but it may be still earlier.

The site is likely to yield sufficient archæological material if excavations are carried out there.

3. *Sabbalgarh.* This is a Fort situated at a distance of some 11 miles to the north-west of Najibabad and is reached by a *kachcha* road. It is related to have been built by Nawab Sabal Khan in the reign of Shahjahan, but was subsequently occupied by a Rohilla Chief, Bakhshi Sardar Khan about the year 1759, when its east gateway seems to have been constructed.

The area of the Fort is more than one hundred acres. It is surrounded by a *kachcha* wall and a ditch both of which are in disrepair. The site does not contain any remains of pre-Muhammadan period.

Dehra Dun District.

The list supplied by the District authorities contained 6 sites (excluding the protected monuments in the Dehra Dun District), all of which except Santaura Devi are situated in Chakrata Tehsil.

1. *Santaura Devi* is situated at a distance of some 5 miles from Dehra Dun and contains a modern temple having no pretentions to architectural beauty.

2. *Qila of Raja Nahan.* It is situated on the top of a hill at a distance of about a mile to the north of the town of Kalsi. As its name indicates, the Fort was probably built by the Rajas of Nahan and used as an outpost before the country was annexed by the British. A local tradition ascribes it to the legendary Kichak who was slain by the Pandava herd Bhim. The fort is about 100 feet long and 60 feet wide and is situated on a steep hill on the right bank of a tributary of the Jumna. Some cut stones are lying scattered at the site. No lime mortar is evident in the construction of the Fort, but some traces are to be found in the ruined steps on the west, which must have been added at a later date.

Two well-like structures with stone steenings exist near the east end of the Fort. They are considered to be wells by villagers, but their situation on the top of a high hill suggests that they might have served as reservoirs for storing water or other necessities for the use of the occupants of the Fort.

3. *Garh ka Qilla or Rissallu ki Garhi.* This stands on the top of a hill about 3 miles to the south-west of the Dak Bungalow at Kalsi. The Fort was perhaps one of the outposts belonging to the Rajas of Nahan. No traces of any building inside it could be found, and the site is not of archæological interest.

4. *Mata Rani ka Tibba.* This is a hill lying at a distance of about a mile to the east of Kalsi town. It is covered by modern shrines dedicated to the goddess known as Mata, and no traces of any ancient remains are visible there.

5. *Dhaura.* This site is situated at a distance of about a mile to the north-west of Lakhamandal. The foundations of a temple are visible there, but the locality seems to be lesser in importance than Lakhamandal, where the main temple is protected.

6. *Vairat Fort.* This Fort is situated on the top of 3 hills adjoining each other along the Chakrata-Mussoorie Road at a distance of some 15 miles from Chakrata. There are traces of an old hill path leading to the Fort, which was once surrounded by a ditch on 3 sides. The main Fort was probably on the top of the southernmost hill as indicated by the remains of ancient buildings thereon. It consisted of an extensive enclosure surrounded by a series of compartments, which are now ruined. The central feature of the enclosure is a modern structure probably constructed on old foundations. A row of cells constructed with rough diaper stone masonry laid without lime mortar seems to have opened on to a strip of land at a lower level which is enclosed by a broad ditch on the north and east sides. The site is of archæological interest.

Saharanpur District.

The District of Saharanpur is very rich in ancient sites, and the Collector of the District reported as many as 20 of them. They all lie on the tributaries of the Ganges and the Jumna as may be seen from the accompanying map of the District (Plate XIII, *a*). A greater part of the District is yet to be explored and arrangements are being made to continue the work during the next autumn.

All the 20 sites mentioned above were visited with the exception of Gummanpur which lies between the Hindandan and Kali rivers that could not be crossed

over without special arrangements. The sites are grouped here according to the Tahsils of the District.

TAHSIL NAKUR.

1. *Firozabad.* The site is only partly embraced by the village of Firozabad, which lies on the left bank of the river Maskhara, a tributary of the Jumna. near Chilkana-Sultanpur at a distance of some 10 miles towards the north of Saharanpur. The road to Chilkana is metalled up to Katla (7 miles) and is *kachcha* beyond. The site covers a vast area, which is partly under cultivation or occupation. Some of the mounds rise above the adjacent ground to a height of about 50 feet. Bricks and sherds lie scattered all over, a big earthen jar, somewhat badly broken by a plough being the nearest approach to a complete specimen. Coins are also related to be found after rains. The site possesses great archæological importance and excavations there are likely to yield a rich harvest.

2. *Sirsawa Fort.* The Fort has been described by Cunningham on pages 79 and 80 in Vol. XIV of Archæological Survey of India Reports. It is represented by a mound which is about 950 feet long and 750 feet broad and an idea of its height can be had from Plate XII, *b*, wherein the tomb of Pir Mardanashahid (also known as Pir Kilkili Shah) is visible at the right end.

Cunningham's statement in respect of the dismantling of the Fort walls may be correct, but it seems that the structures were only partly dismantled. It is very likely that excavations, if carried out, will reveal foundations and probably walls of buildings together with fountains, etc., mentioned by Baber.

3. *Sarurpur Taga* alias *Nichi Nakur.* The site is situated immediately to the north of the town of Nakur and is approached by a metalled road from Saharanpur. A few brickbats of the early Mughal period were noticed, but most of the bricks available at the site belonged to the later Mughal period and the sherds lying scattered over the site appear to be modern.

4. *Khera Shermau.* The site lies at a distance of some 22 miles from Saharanpur between Nakur and Gangoh. As far as Nakur (16 miles) the road is metalled but the portion beyond it is *kachcha.* The best approach is from Gangoh *viâ* Ambehta. The site covers an extensive area of about 80 acres showing the importance of the place in its full glory. It undulates considerably and lies in close proximity to an old bed of the river Jumna, indicating that the town must have once stood on its left bank. The area is under cultivation and complete bricks are not available there, but the thickness and texture of the brickbats show that they belong to the same early period as those found at Surasena described below.

5. *Malikpur Muafi.* The site lies at a distance of some 4 furlongs to the north of Gangoh, which is situated at a distance of some 28 miles from Saharanpur. Some brickbats of the late Mughal period could be seen. The site does not seem to possess any archæological interest.

TAHSIL DEOBAND.

6. *Surasena.* An ancient site of considerable magnitude lies partly in and partly outside the village of Surasena about 16 miles from Saharanpur on the Saharanpur-Deoband Road. The site covers an area of some 150 acres and consists

of mounds which rise to a height of some 20 feet above the surrounding land. Bricks of large size (20″×11½″×3″) comparable to Asokan bricks, in a good state of preservation are to be found there. A number of wells are exposed by rains, of which most have been robbed of their brick steening, but I was able to inspect one situated at the south-east corner of the site. This well is built of wedge-shaped bricks of two different sizes to be assigned to two different periods. Portions of a *kachcha* compound wall of a house at the north-west corner of the lane running through the village were found to be constructed of bricks obtained from the site. Glazed pottery beads are also discovered after rains and are used by villagers as *talismans* against fever.

Five antiquities (Plate XIV, *b*) were obtained, of which the bricks (Nos. 4 and 5) were acquired from the owner of the village, while a piece of glazed and painted pottery (No. 3) was obtained from the top of the mound, but it does not seem to belong to the same period as the other finds. The sling stone ball (No. 1) along with the terracotta figurine (No. 2) were obtained from a rain-cut at the south end of the mound near the site of an ancient well now filled up after the removal of its steening.

The presence of two sizes of bricks (20″×11½″×3″ and 9½″×2″×?) show that the remains at the site belong to two different periods. The presence of the glazed pottery beads along with the other finds suggests that the site belongs to a much earlier epoch than the Kushan period.

At the north-west corner of the village there is a well built with Shahjahani bricks and containing an inscribed stone tablet which could not be deciphered.

7. *Manoharpur.* The mound comprising an ancient site lies to the south-east of the village Manoharpur at a distance of about 22 miles from Saharanpur on the Saharanpur-Deoband Road. It measures nearly 250 feet square and rises gradually above the adjoining ground. Ancient potsherds are found scattered on the ground, but no bricks are traceable. Some trial excavations at this site might determine its antiquity.

8. *Ghattori.* The ancient site lies close to the village Ghattori, which is situated at a distance of some 9 miles to the west of Deoband. There is no road leading to it. The site measures about 700 feet × 500 feet and its highest point rises about 10 feet above the surrounding country. Traces of some ancient ruined structures were visible when the site was visited and a brick was obtained from a corner of a wall. This brick is as big as the larger one from Surasena measuring approximately 19″×11″×3″. Pieces of other bricks measuring (?× 11″×3″) were also found. The site is of archæological interest.

9. *Doodhli.* The site lies on the left bank of the river Hindan and seems to be a part of the ruins extending as far as the village Sohanchira, a distance of not less than two miles. It contains two mounds Doodhli and Sital Khera which rise as high as 40 feet from the bed of the Hindan. Among the terracotta objects obtained from the site (Plate XIV, *c*) attention may be drawn to part of the neck of a vessel (No. 1); fragmentary earthen jar (No. 2); a terracotta ball (No. 6); a pottery lamp (No. 7); and a piece of a brick about 2½″thick (No. 10).

10. *Dugchara.* The ancient site at Dugchara lies at a distance of about half a mile to the east of the village Gangdaspur, itself about 5 miles from Deoband, but not accessible from there. The easiest approach to it is from Manglaur, where horse tongas can be had. The site is very extensive, being more than 1½ miles long with a width of some 3 furlongs. Its highest point rises some 30 feet from the banks of the Nala running to its south-east. Although it is strewn with brickbats and sherds much of it is under cultivation. Traditionally it is related that the ancient town of Dagchara once stretched as far as Delhi, a distance of more than sixty miles. The tradition can only be taken to mean that in ancient times a chain of big towns continued to extend to a very great length in the upper Gangetic Doab along the banks of streams tributary to the Jumna and the Ganges.

11. *Siraska.* It lies at a distance of about two miles to the west of Mangalaur-Deoband road near the left bank of the river Kali Nadi and close to Ransura village. The site is under cultivation and objects of archæological interest are not easily found, but the texture and thickness of the brickbats indicate its antiquity.

12. *Dandauli.* The site is partly occupied by the village Jaula Dandauli and lies about 20 miles to the south-east of Saharanpur. Traces of ancient remains extend to a considerable area of some 100 acres along the Kali Nadi. The site is mostly under cultivation or built upon with small mud huts.

Excavations at this site are likely to yield antiquities of different periods as is evident from the finds which were obtained here (Plate XIV, *d*). Among these, attention may be drawn to the bricks which are 2½″ thick (Nos. 1 and 2) and to a brick (9¼″ square) which is as much as 4″ in thickness.

13. *Begampur Chakdala.* The fairly extensive site here lies on the right of the Kali Nadi close to the village Begampur Chakdala and can be approached from Deoband. An old well having an internal diameter of 6′ 3″ has recently been unearthed with its steening constructed of burnt bricks, which measure 12″×8¾″×2″. Bricks of two sizes are available at the site, indicating that the remains here may belong to different periods. The finds obtained (Plate XIV, *e*) include fragments of bases of pottery and bricks of various sizes and thickness, one (No. 20) being as much as 3¾″ thick.

14. *Jarauda Jatt.* The site is partly occupied by the village Jarauda Jatt which is situated some 8 miles to the south-east of Deoband. Two ancient walls were noticed buried under earth, and they were constructed with bricks measuring 20″×10″×2½″. It was stated by villagers that after rains silver and copper coins are found there as also old bricks. One such brick measured 12½″×8¾″ ×2½″.

15. *Dehra.* The ancient site of Dehra lies at a distance of some 32 miles from Deoband on the right bank of upper Ganges Canal distributary. The modern village occupies the northern portion of the site and a huge lake lies to the west of it. A G. T. Survey Station Minar stands in its centre.

Beads of cornelian and agate are said to be obtained after the rains by the village people who use them as *talismans* against fever.

A part of a conical basaltic stone (8″ diameter; height over 7″) and a crystal bead were found in a cutting at the north-west corner of the site.

16. *Saragthal.* A moderately big site known as Saragthal Viran lies at a distance of some 2 miles to the south of village Malhipur and can be approached by road from Saharanpur. It appears to have been only recently brought under cultivation, as could be seen from the fresh plough marks at the time of the inspection. Pottery, which is scattered all over the fields, and some antiquities were also picked up from a neighbouring ravine. The finds (Plate XIV, *f*) are comprised mostly of bases and lids of pottery.

17, 18 and 19. The three sites *Yaqubpur*, *Majri* and *Khera Veran* at *Chaksalarpur* represent only small villages which have been deserted for some time past, but do not pretend to possess any antiquarian interest.

Tehsil Roorkee.

20. *Baoli at Parao Daulatpur.* The only information received from the Tehsil of Roorkee was concerning the Baoli at Daulatpur which lies some 12 miles to the north of Roorkee. It consists of a large well with a flight of steps, flanked by a row of arched compartments and is constructed of bricks in lime mortar. The form of its arches and the size of the bricks used in its construction indicate that it belongs to the early Mughal period.

Parao Daulatpur. The area to the north of the baoli mentioned above seems to be the site of an ancient habitation, as large ancient bricks and edges of big earthen vessels, were traceable there.

21. *Mayapur.* Mayapur lies at the headworks of the upper Ganges Canal near Hardwar and has been fully described by Cunningham in Archæological Survey of India Report, Vol. II, pages 231-233.

Another site of considerable magnitude was noticed at a distance of some seven miles from Manglaur along the Manglaur-Deoband *kachcha* road, but it could not be carefully examined. It is likely that other ancient sites also exist in the Tehsil of Roorkee.

EXCAVATIONS AT NALANDA.

By Mr. G. C. Chandra.

During the year under report Rs. 5,000 were spent at Nalanda on the clearance of the Chaitya at Site No. 12; and the excavation of a small mound (Site No. 13) situated just north of the same.

The west and the south external walls of an earlier structure underlying the Buddha shrine at Site No. 12 were excavated to the original level, where a solid concrete pavement is still preserved. At the south-west corner of the Chaitya area, two damaged brick shrines were brought to light, one of which has since been conserved. The compound wall of the Chaitya structure was further traced on the north and it was found that it projected to the north so as to enclose another Buddha shrine to the north of the Chaitya area. While removing

débris in this area, a few damaged votive stūpas and a small brick shrine were also brought to light. The open area round the shrine to the west and north was found to have been terraced with thick layers of concrete, portions of which are still left in a good state of preservation.

The removal of a large mass of débris from the mound at Site No. 13 revealed a brick structure similar to the existing large Chaitya at Site No. 12 in size and dimensions but more skeleton in form and badly mutilated. Portions of the outer walls of the Chaitya on the north, south and east have been laid bare, but no stairway has been traced so far. The structure seems to have undergone repairs and reconstruction more than once, as in the case of Site No. 12. No corner shrines, similar to those found at Chaitya Site No. 12, have been found, and it seems likely that at this Chaitya, they were not provided. The central shrine of this Chaitya was exposed in a much damaged condition, only the lower portion of a colossal Buddha image seated on a high pedestal being left undisturbed. Here also there are indications of an earlier structure having been replaced by a later one. A shed has now been erected for the protection of the existing remains of the colossal image. Thick layers of concrete terracing were exposed on the east of the site and a few broken votive stūpas on the north and south.

Of about 4 dozen antiquities recovered mention may be made of one bronze and 11 stone images; a few stone beads; clay seals and plaques. The bronze image (ht. 5¼″) discovered during the year is that of Buddha seated on a lion throne in *Bhūmisparśamudrā*, with the Buddhist creed engraved on a circular metal piece soldered to the back of the image. It is complete with pedestal, halo and umbrella. The stone images recovered vary in size from 4″ to 9″ in height, and are mostly fragmentary. They represent Buddha, Bodhisattva and Tārā. Special mention may be made of a Buddha figure seated on a lion throne in *Bhūmisparśamudrā* (Plate XVII, *h*). The image (ht. 9″) is broken in two pieces, while the umbrella on the top of the halo is slightly damaged. The back of the image is inscribed with the Buddhist creed, followed by a legend in characters of about 10th century A. D. which appear to have been engraved after the two pieces were joined together. Another fragmentary sculpture (Plate XVII, *f*) represents figures (of which one is missing) seated on eight lotus petals, each of whom appears to offer something to a central circular object which appears to be a *liṅga*. The composition is not unlike the figure of Vajratārā of which two specimens are extant. At the sides of the pedestal (5½″ square) were twelve other Nāga figures adorning it, but unfortunately all of them except one (ht. 2¾″) are missing, although the sockets for fixing the figures on the pedestal still exist.

Of the sealings discovered during the year, the following deserve special mention (1) round sealing (1½″ dia.) with the legend below *Baligrama...... etc.*, in 10-11th century characters; above, human figure seated between two standing animals; (2) personal sealing (⅞″ dia.) with two different impressions, one with the legend *Sarvasiddhi* the other being indistinct: (3) broken sealing (2¾″ dia.) with the Deer and the Wheel of Law symbol, below which is a

three-line inscription in Pāla script, giving the legend *Sri Na* (or *Nālandā*?) *Dharmapāladeva*......etc.; (4) broken sealing with a line in Gupta characters and the Deer and Wheel symbol. Two circular terracotta pieces belonging to two different sets of moulds ($1\frac{1}{8}''$ dia. out; $\frac{3}{4}''$ dia. in), one of which depicts a seated female figure (Lakshmī?), are noteworthy. Both the pieces are coin moulds, referable to Narasiṁha-Gupta Bālāditya (standing bow and archer type) of the Imperial Gupta dynasty who is one of the earliest rulers intimately connected with Nalanda both according to tradition and epigraphical evidence. These two pieces, together with another mould piece for casting coins of Jaya-Gupta, are valuable acquisitions to the Nalanda Museum from the numismatic point of view, inasmuch as it is now definitely known that most of the coins of Narasiṁha-Gupta and Jaya-Gupta which bear the marks of filing the lug were cast and not die-struck coins. The gold coin of Narasiṁha-Gupta ($\frac{3}{4}''$ dia.), discovered previously at Nalanda, exactly fits in with the clay mould now discovered (Plate XVII, *d*) . Of the terracotta objects, mention may be made of a toy elephant (ht. $1\frac{3}{4}''$) standing on a circular base or platform with its four legs closed together, apparently in the process of taming. Another interesting object (ht. $1\frac{1}{4}''$) is a small figure of a lion, which seems to have been used for decorating the exterior of a water pot, a complete specimen decorated with three animal figures, a monkey, a lion and a deer, having been previously discovered at Nalanda. These figures were attached to the surface of the pot before burning in a kiln. The significance of the animals on the vessels used by monks is yet obscure, but the association of a monkey with the honey offering to Buddha at Vaiśāli makes it probable that religious symbolism was connected with these decorative figures.

Other mentionable objects found at Nalanda are a few bricks carved with *Kīrtimukha* and floral designs, etc.; a stone pedestal (size $5\frac{1}{8}''\times3\frac{1}{8}''$) depicting two Nāginī figures with hands folded and tails encircling a pillar-like object standing between them; and a small cocoanut shaped stone casket (ht. $2\frac{1}{2}''$). An examination of the clay sealings found at Nalanda from time to time has elicited the fact that many of the secular sealings were fixed to palm-leaf documents tied together with strings or palm-leaf strips used like tapes, of which impressions are left on their back. It is clear that the documents were impressed with seals on clay, which were sometimes partially exposed to fire; besides many of the monastic cells met their destruction by fire. This explains why the collection at Nalanda includes sealings well-burnt (over-burnt in many cases), half-burnt or unburnt.

EXCAVATIONS AT RAJGIR.

By Mr. G. C. Chandra.

The importance of the historic city of Rājagriha can very well be testified by the different names by which the place was known in Sanskrit literature. The names of this first capital of the Magadha country were Girivraja and Vasumatī, being found in the *Rāmāyaṇa*. Bārhadrathapura and Magadhapura

(from *Mahābhārata*), Bimbisārapurī, Kuśāgārapura and old Rājagṛiha. Ajātaśatru, the son and successor of king Bimbisāra of the Śaiśunaga dynasty of Magadha, is said to have founded New Rājagṛiha close to the site of old Rājagṛiha and to its north.

In the centre of the hill-girt city of Rājagṛiha is situated a circular brick structure, popularly known as the Maniyar Math, where the activities of the Department have been directed since 1906 when Sir John Marshall and the late Dr. Theodor Bloch first commenced excavations. The photographs published in Plate XV illustrate the general appearance of the site at successive stages after clearance; the site as found in 1906 (Plate XV, *a*) then in 1908-09 when the circular structure decorated with beautiful bas-reliefs was unearthed (Plate XV, *b*), subsequently when work was resumed in 1932-33 (Plate XV, *c*) and lastly in this season, when the successive strata have been laid bare and the nature of the remains which were somewhat of a mystery from the start, has been cleared up beyond doubt (Plate XV, *d*).

The operations of this season were more or less confined to the environs of the main structure at Maniyar Math, particularly on the east side. Here work was continued to a depth of some 12′ below the level of the circular structure unearthed in 1908. It is now revealed that the circular structure rested upon at least two earlier strata of buildings, which lie one upon the other without any intervening layer of *débris*. In the lowest stratum were discovered two walled enclosures, which measure 24′×23′ and 15′×14′ respectively. The bricks used in the walls are of a fairly large size, *viz.*, 17″×12″×2½″, which indicates an early age prior to the Christian era. What is of greater importance, however, is the find of numerous pottery and terracotta objects (Plate XVI, *b*), which appear to have been purposely buried within the enclosure. The pottery vessels, ranging in ht. from 3″ to 4″, have spouts of numerous designs. stuck and rivetted, as it were, on their surfaces (Plate XVI, *d* and *e*), the number of such spouts varying from four and six to twenty and in one case even thirty-four (Plate XVI, *d*). The designs on the spouts include serpents, sieves, animals, etc. (Plate XVI, *c*). The vessels are long-necked and their bottoms are round or flat; but in some cases, there being no bottom, they must have rested on fixed stands (Plate XVI, *e*). The lower portion of some of the latter vessels immediately above the fixed stands is decorated by rows of small lamps, of which the number comes to eighty in some cases. The pottery is mostly well-burnt and hand-made, with a dull-red slip, being finishing off by beating with a potter's mallet of which the marks are clearly visible over the surface. As usual in hand-made ware the thickness is not uniform throughout and finger marks appear inside the pottery (Plate XVI, *e*).

The vessels contained reddish earth with an admixture of coarse-grained sand. Some of the bigger ones had smaller vessels in them, the contents of the latter being more or less identical. A broken piece of steatite recovered from a vessel had a pictographic mark, which is similar to those appearing on Mohenjo-daro and Harappā seals. Other terracotta finds consist of serpents of different varieties, rams, horses, elephants' (Plate XVI. *f*), and a toy

gabled-roofed house with an enclosed courtyard in front. Within this walled court there are traces of a seated human figure. A hole near the plinth of the house was probably meant for fixing a flag-staff (Plate XVII, *e*). A toy winged bull having very clear marks of leaves of trees on its body, and holes for fixing removable legs now missing, is worthy of attention (Plate XVII, *b*). Amongst other terracottas, potteries and miscellaneous objects recovered may be mentioned cups, saucers, dishes, lamps (*chiraghs*), human figures (both male and female) similar to those discovered at Pāṭaliputra and Buxar, clay beads, broken pieces of steatite, small laminae of mica, bones, clay loops with small circular marks on their surfaces (Plate XVII, *a*) which may represent the loops of serpents, parched rice, pulses and barley. The snakes have one, three, five or seven hoods each and the fangs are clearly depicted in some of them (Plate XVII, *c*). Small octagonal terracotta rods (length 10″, dia. 1¼″), some of them having wood pieces still in their core, and pieces of terracotta railings about 9″ in height, are also amongst the numerous finds recovered from the two platforms.

The importance of these finds for the interpretation of the character of the Maniyar Math cannot be exaggerated. If this name faithfully preserves the memory of Maṇi Nāga, who, according to the Mahābhārata, was the protector and rain-giver of Rājagṛiha, it may be conjectured that the vessels with multiple channels simulating showers were used by distressed supplicants praying for rain and ultimately deposited in the compound of the shrine. Serpent worship was a popular form of religion over a wide expanse of ancient India, but in Rajgir itself its history can be traced almost continuously from about the 3rd Century B. C. to the 5th Century A. D., to which last period the circular structure at Maniyar Math is to be assigned.

EXCAVATIONS AT PĀṬALIPUTRA.

By Mr. G. C. Chandra.

During the year under report, trial excavations were carried out in a brick-field locally known as Gonsai Khanda, situated in the village Sandalpur near the Arzani Dargah to the north of the road to Kumrahar and Bulandibagh near Patna. On report being received from the chaukidar at Kumrahar that traces of wooden structures had been exposed in a brick-field, it was decided to examine the nature and extent of the ancient remains. A long wooden platform, about 100 feet in length, 5′-6″ in width and 7′ in height, running north and south, was brought to light. The bottom of this structure is 22 feet below the level of the road nearby and it seems to continue at either end (Plate XVIII, *c*). Wooden remains were unearthed previously at the Bulandibagh and Kumrahar excavations by the Archæological Department, and recently by the Public Health Department in course of laying sewage pipes to the east of Kankarbagh Road, but the present one is the biggest wooden structure found so far. The minor antiquities found at Gonsai Khanda, consisting mainly of small pottery cups, potsherds and terracotta balls, etc., are similar to those discovered at Kumrahar and Bulandibagh and may roughly be attributed to the Mauryan epoch. A

small walling of Mauryan bricks (size 17″×12″×2½″) was found at right angles to the wooden structure near the top. The particular purpose for which all these wooden structures at the ancient site of Pāṭaliputra were intended is yet undetermined. The Bulandibagh pieces might well have formed part of the old wooden palisade of Pāṭaliputra but the Gonsai Khanda construction is more likely to be a coffer-dam erected in connection with training and revetment of a river bank or the construction of a wharf. The favourable situation of ancient Pāṭaliputra at the confluence of the Son and the Ganges made it a great centre of inland water-borne traffic. There must have been a river port of considerable importance at Pāṭaliputra, where wharfs and docks must have been constructed, and coffer-dams, such as that of which the remnants have been laid bare in the present case, may have been found necessary.

EXPLORATIONS AT LAURIYA-NANDANGARH.

By Mr. N. G. Majumdar.

The village of Lauriya-Nandangarh, well-known for its Asokan pillar, is situated in the Gandak Valley, some sixteen miles to the north-west of Bettiah in Champaran District, at the meeting point of two of the principal routes that lead to the Nepal border. One of the routes connects Lauriya with the frontier station of Bhikhna Thori through Narkatiaganj, and the other passes along the Gandak through Bagaha, reaching finally Triveni on the border-land, at the junction of the Gandak and two other rivers. Along the former route, in the north lies Rampurwa where two of Aśoka's pillars have been discovered, while in the south this line of communication is picked up at Lauriya-Araraj, the site of another pillar of Aśoka, and also at Basarh which represents the ancient city of Vaiśālī. It is clear that Lauriya-Nandangarh must have from very early times enjoyed a position of considerable importance, a fact well illustrated not only by the pillar but also by the large number of mounds or barrows in its close vicinity. These are situated on the banks of the narrow and winding channels that issue from the Sikrahana, a branch of the Gandak.

The mounds attracted the attention of European explorers in the early part of the nineteenth century and were subsequently reported on by Cunningham[1] and his assistants Garrick[2] and Carlleyle.[3] It was however Dr. Theodor Bloch of the Archæological Survey of India who for the first time made a systematic attempt in 1904-5 to study the nature and significance of these mounds by excavation.[4] The conclusions which he arrived at were of far-reaching importance, inasmuch as he pronounced the mounds to be 'royal tombs' corresponding to the burial tumuli mentioned in Vedic literature, and assigned them to the pre-Mauryan epoch. After the discovery of the pre-Vedic remains in the Indus

1 *A. S. R.*, Vol. I, pp. 68-74.
2 *Ibid.*, Vol. XVI, pp. 104-109.
3 *Ibid.*, Vol. XXII, pp. 36-50.
4 *Annual Report of the Archæological Survey, Bengal Circle*, 1904-5, pp. 11-15; *A. R. A. S. I.*, 1904-5, pp. 38-40; *A. R. A. S. I.*, 1906-7, pp. 119-126.

Valley and elsewhere the necessity has now arisen for the checking and appraising of the views of Dr. Bloch. In the spring of 1935 I paid a visit to Lauriya, and made a rapid survey of the site. During the following winter I obtained the permission of the Director General of Archæology in India to carry out trial operations on a few selected mounds and encamped at Lauriya for this purpose for about two months. In addition to the work at Lauriya I conducted explorations also at the neighbouring site of Nandangarh, a project which Bloch himself had in view but had not the opportunity to carry out.

The mounds at Lauriya lie in three distinct rows, one running from east to west and the other two from north to south, most of them being round at the base and conical at the top. Each of these mounds was distinguished by a particular English letter by Cunningham in his map of Lauriya and this system of nomenclature was adopted, with certain modifications, by Bloch, whom I have followed in the present account. The explorations undertaken last year were conducted at the mounds marked A, B and O, and also at N where Bloch himself had already worked.

Mound A, which is 14′ high, is at a distance of about 340′ to the south-east of the Aśoka column, being the easternmost one of the series of mounds that runs from east to west. Cunningham who sank a pit on its summit in 1861-62 writes about it as follows: "Within 5 feet of its top, I excavated a portion of a circular foundation wall, 16 inches thick, formed of single bricks 20½ inches long and 4 inches thick. There were only four courses of bricks resting on the earth of the mound. This work may either have been the retaining wall of a circular terrace which once crowned the top of the mound, or it may have been the foundation of a tower; but as the wall was only 16 inches thick, the former would seem to be the more probable supposition."[1] The pit of Cunningham could be readily recognized in a depression just at the centre of the mound. Excavation was first started at its base and very soon the outline of a circular structure of bricks was traced out, having a diameter of about 107′. It may be noted that not a single brick of the dimensions mentioned by Cunningham was discovered in the excavation, the bricks being usually of the size 14″×8½″×2¾″. When further clearance was made, there remained no doubt as to its being a Buddhist stūpa (Plate XIX, *c*). Its construction generally followed the plans of the early stūpas discovered elsewhere. The solid basement of this stūpa has the shape of two concentric cylindrical rings one encompassing another. Around it there was originally a pavement, traces of which were brought to light on the south and south-east, this probably serving as a procession path. The intervening space or the berm between the two rings of masonry is about 4′-3″ wide, which might have served the purpose of a second procession path. There are however no traces of steps anywhere by which pilgrims could ascend to the berm. The structural portion of the Stūpa ends at a height of about 6 feet, after which starts a solid terrace of clay. The core of the Stūpa also consisted of the same material. Including the terrace, lined at the base

[1] *A. S. R.*, Vol. I, pp. 70-71.

with a brick paving, the height of the Stūpa must have originally reached about sixteen feet or a little more.

After the exterior of the Stūpa had been laid bare our attention was directed to its central portion. Cunningham's pit was reopened and extended, measuring 20′ square, and carried right down to the bottom of the Stūpa. At a depth of 8′-6″ was encountered a circular mass of bricks and concrete about 3′ in diameter, which gradually diminished in size as it proceeded downwards The significance of this shaft of bricks and concrete was however by no means clear, but it may be surmised that this pointed to the spot where the relics were enshrined. The cutting revealed a compact and homogenous mass of clay which must have been obtained from the bed of the Gandak. The discoveries made at the lowermost depths of the pit (14′-6″ below surface) corroborated our assumption that the structure could be nothing else but a stūpa. Here was reached a thick layer of ashes and charcoal about a foot deep, mixed with pieces of burnt human bones (Plate XIX, *b*). On closer search were recovered in it the fragments of a pottery vessel to which some of the bones were found sticking (Plate XIX, *a*). The vessel must have contained the cremated remains of a human body. The bones, which included two fragments of a skull, had been in a semi-fossilized condition, and the fossilization was probably enhanced by their long contact with clay containing a large proportion of *kankar*. Several baskets of charcoal were cleared from the pit and below this layer was reached the virgin soil. No other object was found associated with the corporeal relics, which shows the simple and unostentatious nature of the monument and suggests also the great antiquity that must be attributed to it. So far as its age is concerned some clue is furnished by a silver punch-marked coin of round shape (Plate XXIII, *g*), picked up in course of excavation from the north-eastern slope, practically from the surface of the mound. The coin shows on one side a jumble of many symbols, among which can be recognized a dot within square, solar symbol and caduceus. This would go to show that the Stūpa was erected sometime during the pre-Christian epoch, which may be even as early as the Mauryan times. But there is nothing definite to give us further lead in this direction. The Stūpa must have been visited by Buddhist pilgrims even as late as the 6th or 7th century A. D. This is proved by the discovery of a number of *ex-voto* tablets bearing either the figure of a Buddha and the creed in North Indian characters, or the device of a stūpa. The tablets were discovered on the south at a depth of 2′-4″ below the present ground level, at a distance of 7′-6″ from the Stūpa. The only other find recorded from here was a fragmentary spouted vase of pottery with stamped circle decoration recovered from near the base of the Stūpa, at a depth of 3′, on the eastern side.

We now pass on to Mound B which is to the west of A. It is about 350′ to the south-west of the Aśoka pillar and rises to a height of 22′ above the level of the surrounding plain. Garrick who visited Lauriya in 1880-81 reports that he excavated a well seven feet deep on the summit of 'the large mound directly south' of the Aśoka pillar. This evidently refers to Mound B about which Garrick writes. "In the well which I made in the centre, were found fragments

of large flat bricks; one of these covered a shallow earthen vessel, held together only by the surrounding mud." This vessel which "contained 67 cowries" was discovered "fully 7 feet below the surface." Garrick however did not undertake any digging at the base of the mound with a view to find out its plan. As this was an important point we sank here three pits, each having a width of about 9′. These were started along the north side and directed towards the centre. About 3′-5″ below the present ground level we came upon a part of a circular brick wall 3′-7″ wide in one of the pits, and subsequently the same wall was traced in the other two pits as well. The bricks used in this wall measure 13½″×9″×2″. The pits were now connected, one with another, so as to make a continuous trench, and gradually a length of 267′ of the wall was exposed (Plate XX, *b*). It was clear that a circular structure having a diameter of nearly 170′ lay hidden here, underneath a huge pile of clay. So far as the clay piling is concerned Mound B is similar to A, but it has a conical top unlike mound A which may be said to resemble the back of a tortoise. The height of the tower of clay in B is also proportionately much more than that of A. The brick wall has a uniform height of only about 2′-8″, the remaining 20′ or so being entirely composed of clay. It appears that a round layer of clay was at first deposited here up to a height of about 3′, which was then encased by a brick wall of the same height. Next, the pile was increased till it reached the required eminence, which in this case was out of all proportion to the height of the brick encasement. Although the outer face of the wall was found buried in the detritus washed down the slopes of the mound, there is no doubt that originally it remained exposed to view. There are in all about twelve courses of finely joined bricks, the bricks of the seventh course from the top having uniformly bevelled edges, which must have been made merely for ornamental purposes. The inner face of the wall is however jagged and irregular. This is natural, considering that the wall was meant to rest against a layer of clay. In view of the circular wall encompassing the mound, this should also be recognized as a stūpa. Although it has a fine wall, its plan is much cruder than that of Stūpa A. Moreover, it reveals no sign of a pavement surrounding the base, or a berm at an upper level for circumambulation.

A pit measuring 20′ square was dug on the top of B mound and carried down to a depth of 26′-6″. The cutting showed throughout a hard and compact mass of clay in which it was difficult to work even with a pick-axe. In this pit, at a depth of 7′, was picked up a pig's jaw, and 2′ further down a circular mass of brick-bats and concrete appeared as in Mound A. On its removal the fragments of a pottery vase were noticed together with several pieces of bones strewn around it. From a depth of 18′-6″ was obtained an iron nail, and at 20′ was found another pig's jaw. Apart from these an iron arrow-head was found from the trench outside, on the northern slope of the mound, 3′ below surface. It is uncertain if this object originally belonged to the group of relics deposited inside the Stūpa, or came from elsewhere by accident.

It is strange that excavations in Stūpa B did not lead to the discovery of any human remains. It is possible that they might have been lying a little

beyond our pit, but we had no opportunity of extending it further so as to settle this point. The bones discovered in Stūpa B have been examined by the Zoological Survey of India and all found to be of animals. It is not understood what connection the animal bones could have with a stūpa.

Mound N, which was next examined, belongs to the group that ranges from north to south and is at a distance of about half a mile to the west of the Aśoka pillar. In 1905 Bloch[1] dug a trench in the topmost part of the mound (Plate XXI, *a*), opening towards the east, and found in it at a depth of 6′ to 12′ "a small deposit of human bones, mixed up with charcoal, and a small gold leaf, with the figure of a standing female, stamped upon it". From this discovery there remained no doubt as to the burial character of the mound. The bones were evidently the remains that were left after the cremation of the dead body. In the same trench was also discovered the lower part of a wooden post in erect position, at the bottom of the mound "where the yellow clay stopped and the grey, sandy soil of the surrounding fields commenced". Bloch writes, "I continued digging around it to a depth of about six feet, when water was reached, without, however, reaching the end of the wooden post". This post, of which a photograph taken *in situ* appears in his report, was evidently left at the site, but now there is no trace of it. The gold leaf from Mound N was stolen soon after it was discovered. But another gold leaf like this was recovered by Bloch from the neighbouring M mound, in identical associations, which is now preserved in the Indian Museum, Calcutta. It bears the nude figure of a female with exaggerated hips, standing in a strictly frontal pose, with the arms hanging down along her sides. She wears a girdle and disc-shaped ear-ornaments (Plate XXIII, *b*).

According to Bloch we have in Mound N an analogy of the Vedic tumulus, and in this connection he cited two Vedic hymns having an important bearing on his discoveries. In one of the hymns, which are to be found in the Xth *maṇḍala* of the Ṛigveda, the manes are invoked during the funeral rite 'to hold the pillar' and mention is made of the raising of earth around the dead person, so that no evil may befall him. The wooden post discovered in the centre of the N mound affords an illustration of this custom according to Bloch. In the other hymn, the maiden Pṛithivī, that is the Earth goddess, is invoked during the funeral rite to protect the dead 'from the abode of destruction'. This hymn, in the opinion of Bloch, enables us to identify the youthful female figure represented on the gold leaf, as the Earth Goddess.

In regard to the date of these mounds Bloch says, "apart from the fact of their having revealed to us funeral customs which find an exact parallel in Vedic hymn, it is evident that they must go back to a period before the time of Aśoka". Since this was written the mounds of Lauriya have too often been described, loosely I must say, as 'Vedic burial mounds'. But it should be made clear that although the tumuli may have some connection with Vedic customs, they are not to be regarded as of the Vedic age. Bloch called them 'Pre-Mauryan', but not 'Vedic'. In this connection it may be noted that a gold leaf bearing

[1] *A. R. A. S. I.*, 1906-7, pp. 122-123.

a female figure exactly similar in pose to the one from Lauriya was found inside the Stūpa at Piprahwa in Basti District, U. P., which may be assigned to the 3rd or 4th century B. C. This figure also is now in the Indian Museum, Calcutta (Plate XXIII, *a*). So far as artistic considerations and pose are concerned the Lauriya representation in every respect resembles the female figure appearing on certain decorated stone rings discovered at Bhir mound in Taxila, at Sankisa and at Mathurā.[1] Recently a stone ring with identical decoration, but without the female figure, has been dug out at the Mauryan level at Kadamkuan in Patna, which bears a name in Asokan Brāhmī.[2] The inscribed Patna ring helps us to settle the date of these objects and incidentally also that of the female figure of Lauriya, which in view of this evidence cannot be placed later than the 3rd century B. C. but may be even a century or two earlier. As a female deity has no place in the Buddhist pantheon of the early centuries before Christ, it may be concluded that she represents the survival of a pre-Buddhistic divinity[3] and also that the custom of depositing her likeness along with cremated human remains is of pre-Buddhistic origin. As to whether she is to be identified with the Vedic Earth Goddess or not we cannot of course be certain. Such representations are well known in the ancient world and have been identified as the Mother Goddess or the Fertility Goddess.

Although Bloch's operations at Mound N proved highly interesting, they were unfortunately confined to the top of the mound and no step was taken by him to find out the plan of the structure in which the discoveries were made. Our experience at Mounds A and B prompted us to take up this work, and a trench 50′×32′ was started along the eastern face of the mound, 24′ below the level of Bloch's trench (Plate XXI, *a*). Incidentally, it may be observed that although fragments of bricks were seen embedded in the mound here and there at the base and also a little above it, specially on the north and north-western slopes, no masonry of any kind was found by Bloch in his trench. Our excavation on the other hand soon revealed the existence of a stupendous buttress wall made of bricks-on-edge arranged in offset, running in a circle so as to encompass the entire mound (Plate XXI, *b*). The diameter of this circular structure appears to have been roughly about 240 feet. The wall, which shows an inward incline, rests against a hard filling of clay. It has a height of about 8′ and was totally buried below the level of the surrounding plain. The purpose of the wall must have been no doubt to support a layer of clay as in the B Stūpa. When this layer of clay was securely packed so as to form a stable foundation, a huge mass of earth was piled upon it, layer after layer, and the mound was raised in this way to a height of about 34 feet. The buttress wall,[4] which is only one brick deep, has at the base a brick terrace 6′ wide, running parallel

[1] Two of these stone rings which were recently collected by me at Mathurā are in the Indian Museum (Pl. VI, *c*). See Coomaraswamy, *Archaic Indian Terracottas*, in *Jahrbuch fur Prähistorische und Ethnographische Kunst*, 1928, pp. 68-69.

[2] Jayaswal, *Journal of the Indian Society of Oriental Art*, Dec. 1935, p. 125 and Pl. XXX, 3.

[3] Coomaraswamy, *op. cit.*, p. 72.

[4] Carlleyle seems to have come across a similar wall with two platforms or terraces at the base in Mound E.—*A. S. R.*, Vol. XXII, pp. 36-37.

to it. Against this, but about 6″ lower down, was a second terrace having a width of 13′. The bricks used in these terraces have a uniform thickness of 3″, but their length varies between 18″ and 24″ and breadth between 10″ and 17″. Some of the bricks are wedge-shaped and others rectangular, while most of them have irregular edges. It appears that the bricks do not conform to any standard size but are cut up into slices in a haphazard manner. Nor do they appear to have been properly burnt. The paste, of which the bricks were made, was mixed up with rice-straw and many of them burnt black in the core. They do not show any signs of wear and tear, and it does not seem likely that the terraces were ever left exposed. It appears to me that the buttress wall together with the terraces was entirely covered up by a deep layer of carefully deposited clay. This foundation of brick and clay, so laboriously worked out, was probably intended to protect the monument from floods to which the place must have been exposed, even as it is now.

Simultaneously with the work at N Mound we examined, as thoroughly as was possible, a small brick-built stūpa situated immediately to its south. In Bloch's Map a number of tiny mounds distinguished by the letter O are shown in this area. Recently, the Pursa Sugar Mills Ltd., who have their factory at Lauriya, were digging the surface land of one of these mounds for their plantations, when the Stūpa was brought to light. Thanks to the interest taken in the discovery by Mrs. Dixon and her husband, Commander N. W. Dixon, the Chairman of the Company, the Stūpa was saved from further ruin and on receipt of her report it was taken up for protection by Government.

I examined the Stūpa in April, 1935 and again in the following winter. During my second visit some clearance was made around it, and its edge together with its foundation offset was partially exposed for study (Plate XXI, *b*). A pit was also sunk in the centre down to the virgin soil, but this did not yield any finds. The extant structure is nothing but the flat, circular base of a stūpa, completely denuded of its superimposed tower of clay. With this tower must have also disappeared the relics that were enshrined in the Stūpa.

The structure, whose present height is only 6′ including the foundation, has a diameter of 68′. It is solidly built, there being in all twenty circular courses of bricks around the centre. Most of the bricks are wedge-shaped, and measure 18½″ to 20″ along two sides, 11″ or 11½″ along another, while the fourth side varies between 8½″ and 10″. Although the dimensions of the four sides of the bricks are not constant, they show a uniform thickness of 3″. It is interesting to note that the paste of which the bricks are made contains a large quantity of rice-straw and they are burnt at a low temperature, as is also the case with the bricks of Stūpa N. Rice-straw, as already pointed out, is present also in the bricks of the latter stūpa. The same feature is shared by the bricks of Piprahwa,[1] although it rarely occurs in those of Stūpas A and B. In the construction of the base, Stūpa O is quite different from A, B and N, as it does not contain in the middle the filling of clay.

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[1] *J. R. A. S.*, 1898, p. 582.

In the present state of our knowledge it is not possible to assign definite dates to any of the mounds at Lauriya; nor can we place them in a strictly chronological order. But there is no doubt that they are interesting in various ways, and if sufficiently explored may yield valuable data for the study of the origin and development of the stūpa.[1] I have referred to the four mounds A, B, N and O as stūpas; but this does not mean that all of them are to be necessarily regarded as Buddhistic. Mound A, which has been completely excavated, no doubt belongs to that category, specially in view of the votive tablets discovered by its side. But nothing has been found at B, N and O that can be said to be indicative of their Buddhistic origin. Such stupendous burials, as B and N, however much simple they may be, could not in any case have been erected for ordinary individuals, and Bloch suggests that they are to be looked upon as 'royal tombs'. The earliest reference to the 'Stūpa' occurs perhaps in the *Mahāparinibbāna-suttanta* (*Dīgha-Nikāya*, XVI.5.11), where the Buddha tells his disciple Ānanda that a stūpa containing the remains of his body, after it has been burnt on the funeral pyre, should be erected for himself at the crossing of four high ways (*chātummahāpathe*), in the same manner as the stūpa of a universal monarch. Originally, therefore, there need not have been any distinction in form between a royal tomb and a Buddhist stūpa. It is also clear that the custom of erecting stūpas was prevalent even before the Buḍdha and was merely copied by his followers.

In the Vedic texts dealing with burial, we find that those people also had the custom of raising earthen burial mounds (*śmaśāna*) in which were deposited the bones of the dead. The system of post-cremation burial was favoured more than actual burial itself, and it appears that the bones used to be collected after cremation and buried in a tumulus, exactly as we find in the *Mahāparinibbāna-suttanta*. The *Śatapatha-Brāhmaṇa* refers to the erection of a four-cornered earthen mound outside the village for this purpose, and it incidentally records that the Easterners (*Prāchya*) make their *śmaśāna* round in shape (*parimaṇḍala*).[2] It is likely that this round sepulchral mound of the Vedic "Easterners" was the prototype of the stūpa of later times, and naturally therefore there would be found some common elements or other between them. In this connection it may be noted that the practice of erecting a wooden post in the centre of a mound, which has been found at Lauriya and has its analogy in a Ṛigvedic hymn, is not traceable in any of the other mounds examined by us. Instead of it we have, in the centre of Stūpas A and B, a column or shaft haphazardly made of brick, earth and concrete. A more regular shaft, filled with clay and encased by brick-work, was discovered in the centre of the Piprahwa Stūpa, and this feature has been noticed also in the stūpas of Bhaṭṭiproḷu and elsewhere in the south.[3] There is every reason to assume that this masonry column served the same purpose as

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[1] On this subject see the exhaustive treatment of Paul Mus, *Barabudur—Les Origines du Stūpa et la Transmigration*, *B. E. F. E. O.*, Tome XXXIII (1933), fasc. 2.

[2] Eggeling, *S. B. E.*, Vol. XIV, p. 423 and n. 2.

[3] G. Jouveau-Dubreuil mentions the existence of a rock-cut hollow stūpa with central column at Mennapuram—*Vedic Antiquities*, 1922, p. 13 and figs. 4, 5.

the wooden post, namely to mark the centre of the Stūpa where the relics were deposited.

According to the Vedic texts, the *śmaśāna*, or 'the abode of the dead', existed beyond the limits of the dwelling area, a custom that has prevailed throughout the ages. At Lauriya itself, there is no trace of any ancient human habitation. But there exists about half a mile to the south of the mounds the site of Nandangarh which, as Bloch has suggested, might have had some connection with Lauriya, the former probably representing the City Area of the period. This supposition, as we shall see presently, was to some extent corroborated by the operations conducted by us at Nandangarh, although the discoveries made there up till now do not carry us beyond the second century B. C.

The principal features of the Nandangarh area are a huge mound about 82′ above the surrounding plain and a range of low mounds forming a quadrangle, two of the sides of which join the main mound at a corner to the north of the area. The mound was overgrown with dense forest, so much so that at the time of our visit its outlines were hardly clear. The photograph accompanying Bloch's report, which is the only one so far published, does not reveal any part of the mound. Our first task at Nandangarh was therefore confined to the uprooting of the trees and bushes and making a clearance on the top as well as on the slope, so as to enable us to undertake excavations. When the ground was ready for the purpose a trench of the shape of the letter L was started on the summit of the mound and another trench was driven into the base from the western side, simultaneously.

In the L-trench, about 4′-5″ below surface, a circular brick wall, 3′-5″ high, was brought to light (Plate XX, *a* and *b*). It was not however found intact, but only in fragments which were exposed in course of the operations on the south-east and south-west. Its other parts either remained hidden in *débris* or had already disappeared. The diameter of this circular wall when complete would have been about 208′. It is possible however that it did not form a regular circle but an apse with opening on one side for approach, as in apsidal temples. The back of the wall consisting of irregular layers of bricks showed a gradual incline, forming the hypotenuse of a right-angled triangle. In the middle of the area enclosed by this wall was a stupendous mass of earth and *débris*, in which bricks were rarely met with. Indeed, its peculiar muddy colour suggested that no brick building ever existed here. There could be recognized two distinct layers in this area: first a layer composed of hard yellowish clay and next one of *débris* mixed with brick-bats and pottery having a blackish appearance.

In this trench we were fortunate enough to discover a large number of antiquities, along the inner face of the circular wall. The finds consist of terracotta figurines, different kinds of stone beads, copper coins and also a few terracotta sealings. One of the sealings bears the inscription *Sivadāsasa*, *i.e.* 'of Sivadāsa', in Brāhmī characters of the 1st century B. C. (Plate XXIII, *o*). Some of the coins are noteworthy and must be as early as the second century B. C. Among these are a few copper cast coins bearing the following devices: (1) *Obv.* Tree in railing, *rev.* a taurine enclosed on three sides by a line so as to form an apse

(Plate XXIII, *j*). (2) *Obv.* Horseman, *rev.* tree (Plate XXIII, *d*). (3) *Obv.* Tree in railing, hill, cross and taurine; *rev.* elephant to left, triangular-headed symbol (standard ?), taurine and *svastika* (Plate XXIII, *i*). The last mentioned coin is also reported from Benares and its neighbouring Districts and is similar to Cunningham, *Coins of Ancient India*, Plate I, 28 and Smith, *Catalogue of Coins in the Indian Museum.* Vol. I, Plate XXII, 16. There were also found a few round copper coins bearing Brāhmī legends, on one of which the letters ..*mada*.. can be read on the obverse and on the reverse is a device consisting of rows of dots. (Cf. *I. M. C.*, Vol. I, Pl. XXII, 12 of Rāmadatta). The characters appear to be those prevalent in the 1st century B. C. The earliest of the finds was perhaps a silver punch-marked coin, bearing amongst others the Solar symbol, which was picked up from the surface of the brick wall (Plate XXIII, *f*). The latest was a piece of Huvishka with the representation of the King seated on a couch on the obverse and the Sun god on the reverse. A copper coin bearing the enclosed taurine and tree in railing devices, like the one mentioned above came also from the foot of the mound on the western side, where it was lying on the surface. This particular device of the taurine within apse is repeated on a terracotta sealing collected from the L-trench. The taurine symbol in apse probably represents a shrine with the deity inside (Plate XXIII, *s*). From these finds it is evident that the structures that originally stood here were erected about the 2nd century B. C., a conclusion that may be arrived at also from a study of the terracotta figurines. In this connection it may be noted that there are certain structural remains of a superficial stratum occupying the topmost part of the mound at a height of about 80′, which may be as late as the Gupta period or even later.

As regards the terracotta figurines of which a fairly large collection was made from the L-trench, the reader can form an idea from the illustrations in Plate XXII, *h-o*. It will be seen that the female figures are the most interesting, being of different types. The one with bulged out gown and disc-shaped ornaments for the head, and with arms hanging down (Plate XXII, fig. *o*), resembles a figure from Bulandibagh in Patna (Patna Museum, No. B 1916). The woman standing with her hands placed on the hips represents another type (Plate XXII, *m*). Mark that she wears a close-fitting garment and a bodice and that her headdress somewhat resembles the Indian *pugri.* A terracotta matrix of this figure was also recovered from the same trench, showing that it was made locally and at the site. Another terracotta matrix represents a Śiva-liṅga, but it is not possible to find out its age, unless the associated objects should afford an indication (Plate XXII, *e*). An interesting figure is Plate XXII, *h*, which represents a woman with two wings. Such winged male figures (*devaputra* or angel) appear on the Bharhut railing. The lower part of a female standing with crossed legs in an easy posture appears in Plate XXII, *j*. Stylistically these terracottas are related to those of the Śuṅga period (2nd-1st century B. C.) discovered elsewhere. The same dating holds good also of the animal figurines including heads of the ram and elephant, which must have formed parts of toy-chariots. A characteristic feature of these animal figures is the stamping of designs on their

body, such as wheel, leaf, etc. (Plate XXII, *d*). These stamped patterns have their exact analogies in figures from the Śuṅga levels of Basarh and Bhita. The animal heads were fitted on to terracotta wheels of which also a good many examples have been discovered at Nandangarh (*e.g.*, Plate XXII, *f*). In these wheels the spokes are indicated in relief around the raised hub. A duck-shaped whistle found in this trench (Plate XXII, *c*) shows the survival of a type that occurs even in the Indus period at Mohenjo-daro. Among pottery articles mention may be made of a type of jar-covers showing a cup-like depression in the middle of the upper side and a bulbous formation at the lower, with which we are already familiar from the early levels of Bhita.[1] A common type of vessel of this period which occurs here as well as at Bhita,[2] is the one showing two moulded projections along the body, one above the other. A very fine collection was made here of beads of different kinds of semi-precious stones, terracotta and faience. The stones include agate, cornelian, crystal and amethyst. Some of the typical examples are illustrated in Plate XXII, *k-n*. Of the sealings, which are of private individuals, mention has already been made of one of Śivadāsa and another with the taurine symbol. There are three others, one with the device of a bull, another with the *svastika*, and a third one bears a triangular symbol and the 'Kassite cross' (Plate XXIII, *p-r*).

Our operations at the foot of the mound were confined to an area measuring only about a hundred square feet on the western slope of the mound, starting from the present ground level up to a height of about 7 feet. Here, remains of brick buildings belonging to more than one stage of occupation were brought to light, the late walls superimposed on the earlier, with an intervening layer of *débris* (Plate XX, *a*). At the uppermost level, so far exposed, is a polygonal structure which must have been quite imposing. Undoubtedly it is the remains of this building that compose the bulk of the mound. The basement wall of the structure takes a zigzag course, showing a number of re-entrant angles (Plate XX, *a* and Plate XX, *f*), in which respect its plan resembles that of the Stūpas at Paharpur and Nālandā. An interesting point to note regarding the basement wall is that it shows a course of bricks with bevelled edge, as noticed also in the Stūpa B of Lauriya. Such courses of bricks with rounded edge occur also at the base of the stūpas of the mediæval period at Nālandā and elsewhere. At a corner on the north side, the wall shows corbelling below the course of rounded bricks. Although only a part of the basement, covering a total length of a hundred feet or so, was cleared, we can still obtain some idea of the plan of the structure, which seems to have resembled a Maltese cross in outline. At this stage, we cannot be sure as to whether the building was a solid stūpa or a temple. But this much is certain that here we have the earliest example of a building of this design. Adjoining the wall is a terrace to which originally access could be had by means of a passage from the north-west. Here was discovered a small terracotta head, remarkably well-modelled, representing a child (Plate XXII, *b*), which has stylistic affinities with figures from the Mauryan levels at Pāṭaliputra.

[1] *A. R. A. S. I.*, 1911-12, Pl. XXIX, 33, 34.
[2] *Ibid.*, Pl. XXIX, 36.

At the base of the mound were brought to light a few walls and a ring well. This well having a diameter of 3′ was found in a much dilapidated condition. A little below, or about the present ground level, were discovered two brick-built cess-pits, one finished with a paved floor (Plate XX, *e*) and the other without it. The former, which measures about 3′-10″ square on the surface, narrows down to 2′-10″×2′-6″ at the bottom. As excavated, it stands to a height of 7′-6″, supported all round by walls, the bottom of which rests only about a foot below surface of mound. The floor of the pit therefore lies 6′-6″ below the ground level of the period. The walls of the pit have a thickness of 9″ and its bricks, which show fine joints, measure $13\frac{1}{2}'' \times 8\frac{1}{2}'' \times 1\frac{1}{2}''$. Each wall is pierced with a hole on the inner side, the holes appearing at 3′-9″ from the mouth of the pit. These were evidently provided to enable a man to descend into the pit, and clear its contents at intervals. The other pit, which does not show any pavement inside, was probably used as a soak-pit like those discovered at Mohenjo-daro. It is possible that it was connected in some way or other with the well nearby, as one of its walls shows an inlet probably for the spilt water. The opposite wall of the pit is pierced with two holes, one below another, probably for the discharge of the refuse water into an adjoining square chamber which is also without paving. From the presence of these pits we can reasonably assume that this area represents the back portion of the building.

The two pits and the area around the well yielded a large number of pottery. The type commonest of all was a pan-shaped vessel, of which numerous specimens were cleared from the two pits. The same type of vessel is also reported from the early levels of Bhita. An interesting find from the soak-pit adjoining the well was a silver punch-marked coin with the following symbols: *obv.*: three-arched hill, caduceus, solar symbol, taurine and leaves arranged alternately around a circle; *rev.* only the single symbol triskeles (Plate XXIII, *h*). Another coin recovered from this area was a rectangular cast coin with the *svastika* symbol on one side, the reverse being completely blank (Plate XXIII, *e*). Very few terracotta figures were unearthed in this area, the only mentionable figure being the one in Plate XXII, *g*, which came from near the well. It shows a woman bedecked with heavy ornaments including a girdle with a chain of beads hanging in front.

The finds so far recovered from Nandangarh do not enable us to ascertain definitely the date of the building. But so far as available evidence goes, we may tentatively ascribe it at least to the second century B. C., excluding of course the superficial layer or layers. The elevated land to the west and south-west of our excavations at Nandangarh, surrounded by a long range of mounds, seems to mark the site of dwelling houses which on excavation may reveal a number of strata. As suggested by Bloch, this represents perhaps the City Area of the same period to which belong the burial stūpas of Lauriya. Nandangarh was then the place where the people of this city used to assemble for worship. But the enigma is still far from settled and must await further investigation.

EXCAVATIONS AT GOKUL.

By Mr. N. G. Majumdar.

The excavation of the mound known as Meḍh in the village of Gokul near Mahāsthān in Bogra District, which had been started in 1934-35, continued during the year under review, and in all over one hundred and seventy so-called chambers or shafts were exposed at the different levels of the monument, covering a total area of about 264′×183′ (Plate XXV, *a*). Some of the chambers were excavated down to the bottom level, while the rest were merely followed in outline so as to complete as far as possible the plan of the building. The shafts contained nothing but pure earth, free from *débris*, and the few objects that were collected generally came from the surface levels.

The operations were started along the north-eastern, north-western and south-eastern slopes of the mound, and gradually extended towards the top where the plinth of a shrine had been already laid bare during the previous season. On the north-east, at a height of about 25′ from the foot of the mound, was discovered a staircase 4′ 8″ wide, with landing, leading up to a terrace encircling the shrine. Another staircase 3′ 8″ wide was also found only at a distance of 10′ (Plate XXVI, *b*, *d*).

The plinth of the shrine, which is just a foot high, is a polygon of twenty-four sides (Plate XXIV, 2). In its surface *débris* could be recognized the top of a chamber 27′ square. The walls of the chamber were dug down and gradually a 4′ 8″ wide doorway and a paved floor were brought to light (Plate XXIV, 3). The door appeared to have been blocked up in a later period, when the chamber itself had to be abandoned and the place raised to a higher level by filling up its interior. This period is represented also by a brick pavement and certain superficial walls that we came across to the west of the shrine (Plate XXIV, 1).

Clearance in the centre of the chamber revealed a cell, undoubtedly of a later date, measuring only 5′ 2″×2′ 3″, with a passage 1′ 7″ wide, which contained a much decayed human skeleton. This cell, together with the floor of the square chamber into which its foundation was laid had to be removed in order to examine the original structure. At the south-eastern corner of the chamber, just where the walls ended, there was lying a large-size broken jar on the top of a circular course of bricks with regular facing, indicating the level of an earlier occupation. Excavation revealed two more brick courses, the three forming together a complete circle with a diameter of 12′ 8″ (Plate XXV, *b*). As the outer edge of the circle goes underneath the walls of the square chamber (Plate XXIV, 5), there is no doubt that the latter was erected at a time when the circular structure lay hidden beneath the layer of *débris*. It follows therefore that the chamber did not form part of the original building.

In the interior of the circular structure remains of a pavement were laid bare, and in the centre we came upon a pit 5′ 3″ in diameter, made of two courses of bricks with regular facing. In the middle of the pit a stone slab was horizontally laid, measuring 1′ 8″×1′ 6″ (Plate XXV, *c*). There are twelve shallow holes marked on the stone and a bigger hole at the centre which contained a

gold leaf, $\frac{3}{4}'' \times \frac{7}{8}''$ in size, bearing the figure of a recumbent bull in *repoussé* (Plate XXXVI, 2). After removing the slab, which lay at the level of 6′ 9″ from the surface, the pit was dug inside, down to a depth of 12′ (Plate XXIV, 4), but it did not seem to extend any further nor was any other object found within it. It appears that the gold leaf was placed here as the foundation deposit of a shrine, and it may be suggested that the shrine, judging from the bull figure, was dedicated to the worship of Śiva. There is however no means of determining the appearance of its superstructure from the excavated remains.

As regards the construction of the monument, some points are worth recording (Plate XXIV, 1). What appears probable is that a solid column of brick and concrete was at first raised, to a height of 30′ or so, on which was erected the polygonal shrine having in its centre the circular structure with the bull figure deposited below its floor. At a distance of 15′ from the shrine, and surrounding it on all sides, was built a massive wall, of a varying width of 7′ to 10′, forming a sort of quadrangle, which as excavation has shown, was at least 28′ high. The space between the wall of the shrine and this massive wall was next filled up with earth, and cross-walls were erected in between, dividing the area into small chambers, or shafts, which again were also filled up with earth. When this whole quadrangle was made quite compact and solid, smaller quadrangles were added to it on four sides, the one on the west being bigger than the others. The interior of these quadrangles was also treated like that of the principal one in the middle, and they too were divided into a number of chambers, the height of the walls gradually diminishing as the construction proceeded farther and farther away from the centre of the monument. The outer walls of the four smaller quadrangles were supported in their turn by rows of shafts enclosed by walls, the shafts becoming more and more shallow as the ground level was approached. At this level on all sides the chambers are the largest in size, though not in depth. The walls of some of the chambers or shafts were found to continue to a depth of 20′ to 28′ from the surface. Among these the largest ones measure, *e.g.*, 20′8″×12′, 20′4″×5′, 14′×13′, the middle size ones 10′×6′ or 10′×4′, 8′6″×5′, while the smallest ones only 5′×4′ or 3′ and even $6\frac{1}{2}' \times 1\frac{1}{2}'$. Some of them again, specially those between the massive wall and the shrine at the highest level, are not rectangular. The way in which so many buttress-walls were erected side by side, to support a central structure on top, is a feature which is of great importance in the history of the architecture of Eastern India.

Although this building must have been quite an imposing one, we have not been able unfortunately to collect any important antiquities from the excavations. Indeed there is not even sufficient datable material at our disposal and our estimate of the date of the monument can at best be a tentative one. Among the objects discovered from the area, the majority are terracotta plaques, some bearing architectural and floral patterns, and others human and animal figures (Plate XXVII). As regards the former special mention may be made of the lotus (figs. 1, 6), the chequer (figs. 7, 10) and the window patterns (fig. 9). Of the latter class, the human figures illustrated by Plate XXVII, 4 and 5

are typically 'Gupta' in style. Fig. 8 shows the head of a lion, Fig. 11, a boar and Fig. 12, the front portion of a crocodile or *Makara* with its rider on back. These animal figures are also characteristic of the Gupta style. The bull figure on the gold leaf is rather crude, as compared with the contemporary terracottas, and there is no doubt that in the latter the Bengal artists have always excelled. On the strength of the evidence supplied by these terracottas the monument may be assigned to the 6th or 7th century A.D.[1]

EXPLORATION IN THE MADRAS PRESIDENCY.

By Mr. H. H. Khan.

During the year no large scale excavations were undertaken on any site, but in various places in the Madras Presidency trial diggings were undertaken. A systematic campaign of work at various centres is urgently necessary, if the present attempts by ignorant and educated people are not to result in the inevitable destruction of the prehistoric and other remains.

In the District of Malabar two small caves were brought to light at Chiratat Hill near the village Makkada Desum by some persons cutting laterite blocks which is the main building material available in this part. Since a few earthen pots were uncovered (Plate XXVIII) the work was stopped partly owing to the superstitious fear haunting the villagers and partly owing to the injunctions of the revenue authorities. The caves consisted of a small excavation with traces of a verandah in front. Besides the pottery mentioned above stone pedestals with 4 legs were found in each cave. It is very likely that the caves were connected with the funerary customs of the ancient inhabitants.

Another site which was examined for remains of the iron age was that at Kadayanullur, Tinnevelly District. Here within an area surrounded by remains of a rampart wall are found fragments of pottery and quantities of smelted iron. A little excavation yielded a few small pottery vases and urns similar to those found at Adichanallur, but it is difficult to assign a definite period to these finds without regular excavation. Two small cannon balls were also found along with the pottery, which led to the conclusion that the remains are of the historic age.

At the foot of the Western Ghats about 5 miles from Kadayanullur, a cave of a fairly large size (18 ft.×7 ft.×8 ft. high) with a small shrine on either side was discovered. There are three openings in the main cave and one in each of the side shrine. Three recesses have been cut in the main cave, but there are no images. Except the door-keepers in the small shrine no other sculptured panels are extant, and it is likely that the cave which is to be attributed to the late Pallava period (8th-9th Century) remained incomplete. Another regularly cut cave temple of the same size occurs at the foot of a rock near Kiroshighamani forming part of a *bund* of a village tank about 10 miles from Veerasigamani. The sculptured panels in this cave are in a more complete state of preservation, but the premises have undergone additions at the hands of the worshippers who have

[1] Similar terracottas have since been excavated (1936-37) by the author also at Govinda Bhita mound in Mahāsthān.

added a compound wall in front and installed a *nandi* bull. An inscription occurs on one of the pillars of this cave, and there is also a natural shelter about half way above this rock where occurs an impression of a pair of feet on a lotus flower. A proper examination of the remains in this locality is necessary. A highly ornamented temple of Siva consisting of halls, corridors and minor shrines all of which are decorated with finely sculptured images and panels is situated at a distance of a mile and a half from Kadayanullur Railway Station (Plate XXIX, *a*). The temple is situated in private land and is surrounded by rice fields and deserves to be brought under the Ancient Monuments Preservation Act and saved from further damage.

In the Coimbatore District an ancient site near Nanjundapuram was examined. It was originally discovered by people cutting stones for building purposes, who found small burial chambers built of stone slabs. A row of three chambers was exposed (Plate XXIX, *b*) and it is believed that they form part of the cist burials so often found in the Coimbatore District.

On the summit of the Cairn hill on the Nilgiris fragments of pottery and terracotta figurines were found (Plate XXIX, *c* and *d*). The pottery vessels are broad-mouthed with a string course near the neck and are of the primitive variety without slip or bend. The terracotta model animals include a flat bovine head, horns and smaller fragments of crude animal figurines. Without more extensive work it is difficult to assign the sculpture any definite age. At Siyamangalam in the North Arcot District a stone relief was unearthed in the enclosure of the Stambheshvar temple and is now preserved in the compound of the temple which is a protected monument. The relief represents the Goddess Lakshmi, which is shown as standing on a double lotus holding in the upper two hands a conch and the chakra (Plate XXX, *a*). The lower left is placed on the hip and the lower right in the attitude of protection. The Goddess wears the usual ornaments including a band around the breast and the high conical coronet which appears to have been fashionable in the late Pallava or early Chola times.

Another discovery worth mention is that of a quantity of pottery found in course of digging the foundations of a new church at Markapuram, which has now been removed to the Government Museum at Madras. It appears that the whole area is strewn with such ancient pottery as an earthenware bowl was found in the immediate vicinity of the church during the course of inspection of the site. From Nandalur in Cuddapah District is reported a find of 14 hero-stones and a stone inscription from a site at a distance of about 3 miles from the town and very close to the railway line. All these stones show warriors drawn in relief holding bows and arrows in their hands and daggers in scabbards tied to their belts (Plate XXX, *b*). The numbers of stones found in the locality are an indication that it was the scene of a fierce battle, which is likely in view of the fact that the District has often been the battle-ground between the Chalukyas and Rashtrakutas on the one hand and Pallavas on the other.

At Nagarjunakonda no regular excavation was conducted, but a number of Naga stones and a slightly worn out panel were brought to light at the foot of

the Nagarjunakonda hillock. These were added to the large collection of sculptures which is temporarily housed in a wired enclosure, but a Museum of a suitable design is now being constructed. An idea of the magnificent art treasure at Nagarjunakonda will be given by the three panels in Plate XXX, *c*, *d* and *e*, which shows the woman and tree motif so familiar from examples at Bharhut, Sanchi and Muttra, but rendered in the characteristic lively style by the Nagarjunakonda artist.

At Hampi a persistent campaign for the recovery of images, bas-reliefs and architectural stones from the surrounding fields and *débris* was continued during this year and 120 objects including inscribed stone slabs were sent to the zenana enclosure, where an open air Museum has been formed. Among the new finds is an interesting inscribed sculpture 3′ 6″ and 1′ wide in which the upper register shows two female figurines and the lower a king on horseback with an umbrella, and two warriors holding bows and arrows.

EXPLORATION IN BURMA CIRCLE.

By M. Chas. Duroiselle.

During the year under report no regular excavation was undertaken in Burma but a sum of Rs. 376-3-6 was spent on the preservation of two exposed sites at Pagan.

Of the two sites selected for preservation at Pagan one was a small encased stūpa of the conical type situated in the middle of a field to the north-east of the Thiyipyitsaya (Siripaccaya) village. It was first examined in the year 1930-31, when some antiquities including terracotta votive tablets and Buddha images in bronze and wood belonging to the 11th-12th Century A.D., were recovered from its relic chambers and from among the *débris* on the south side of it; these are now preserved in the Pagan Museum. This year the hole made by treasure hunters in the bell-shaped dome of the inner stūpa was closed with brickwork flush with the adjoining surface of the old work, and what remained of the outer covering was strengthened by replacing the missing bricks, resetting the loose bricks in lime mortar, underpinning and grouting. The ground around the site was also levelled and proper drainage provided.

The other site is that of an old brick monastery situated close to the south of the Somingyi Pagoda at Myinpagan (Plate XXXI, *a*). It is a square building the walls of which are pierced with rectangular window openings. After clearing the monastery of *débris* that had accumulated particularly during the last few years the exposed brickwork was strengthened by replacing missing bricks, re-setting loose bricks in lime mortar, underpinning, filling up holes and crevices and grouting cracks. The *débris* was found to be more extensive than had been anticipated and the heaps in some parts of the building were as much as 6′ high. Underneath was found a layer of sand 1½′ thick covering the stone flagged floor.

As will be seen from the plan (Plate XXXI, *c*) the monastery consists, in the centre, of a brick-enclosed platform (35 feet square) surrounded by a lobby on

the east, a chapel on the west and small cells on the north and south with all of which it is connected by narrow passages. The passages and floors of cells are paved with stone flags each measuring 10″×6″×2″. There are altogether eleven cells. The four cells to the north and south of the central platform measure respectively 10′×11′, and are each provided with a doorway 4½′ wide on the side facing the platform and a recess with a window opening 2′ wide in the wall on the opposite side; the partition wall between the cells being 3′ in thickness. The bricks used in the walls measure 1′ 3″×7½″×2″.

The chapel is a small square two-storeyed building with a single door opening on the east, connecting it with the central platform by a passage. A narrow vaulted corridor runs round on three sides except east and in the west wall is a recess with a 2′ wide window opening. The lower chamber of the chapel measures externally 15′×17′; in it were found the remains, on a brick pedestal, of an image placed against the west wall. The *débris* and sand in this chamber and also in the corridor have yet to be cleared. The upper chamber of the chapel also probably enshrined a Buddha image at one time, but no traces of it have been found. The four cells in the western row have each a doorway 4′ wide opening on the passage to the west of the central platform. The west walls of these cells also have each a recess with a window opening 3′ wide. On the floor of the southernmost cell were discovered two terracotta votive tablets, each bearing a short inscription on the obverse. Curiously enough, both of these are exact duplicates of already known types from Pagan (*vide* Archæological Survey Report, 1926-27, Plate XXXIX, *a* and Archæological Survey Report, 1927-28, p. 125).

The lobby on the east measures 25′×23′ internally. It has three entrances, the main entrance (5′ wide) on the east and two subsidiary ones (2′ 6″ wide) on the north and south. It is also connected with the passage on the west by a doorway 5′ wide. The two cells on the north of the lobby have each a doorway 4′ wide on the west side connecting them with the passage, which lead to a window opening 1½′ wide in the north wall of the building. The cell flanking the lobby on the north has a similar recessed window on the east and that on the south side which measures 10′×17′ has in its south wall a small vault connected with it by an opening 2′ wide. This cell has a doorway 4′ wide on the west side connecting it with the passage to a window opening 1½′ wide in the south wall of the building. From this passage near its southern end a flight of steps, of which only traces now remain, ascended eastward in the thickness of the wall over the vault mentioned above. When the work of clearing the *débris* and sand has been completed the monastery will be brought on to the list of monuments maintained by Government. All the forty-three monuments at Pagan which are borne on the list are temples and pagodas, but the monastery now being cleared will be the first of its class.

The most interesting find made in Burma during the year under report is a terracotta plaque (Plate XXXII. *d*) found in the possession of Daw Mya Shwe, Deputy Inspectress of Schools, Insein, which was brought to the notice of the Superintendent by U Hla Baw, Principal of the Detective Training School, Insein. It is said to have been originally found by a Buddhist monk in the bed of a disused

tank known as Myaseinkan, near his monastery at Kyontu. Pegu District, while pumping out water to clean the tank. It measures 1′ 6″ square and 2″ in thickness. It is made of hard clay and is the first of its kind that has so far been discovered in Burma. It depicts a party of musicians, of whom there are five arranged in two rows. In the upper row are two figures, the one on the left blowing a kind of French horn and the other on the right playing on some uncertain instrument which has broken off. In the lower row, the two figures on either side are beating drums, and the one in the centre, probably the worse for liquor, is dancing, steadying himself on the shoulders of his companions. The figures are well portrayed and placed in a circular sunken panel enclosed by a border of beads. Their style, dress and features are purely Indian. They wear each a necklace of beads, armlets and a *dhoti*, and the dancer has in addition a piece of linen across his chest. The hair is parted in the centre and formed into two big tresses falling just over the shoulders and covering the ears. Their bodies are plump and their faces round. The seal impressions at the corners consist each of a half disc and therefore, as seen in the photograph, look fragmentary and make the plaque, although entire, appear to have been cut at the sides. There must have been other similar plaques which, when placed side by side, completed the seals, and they probably adorned the base of a monument which must have been of a fairly large size.

Short notes on some of the stone sculptures and wall paintings found in Temples at Pagan may prove of interest. In the corridor on the north of the Kubyaukgale Temple at Myinpagan is a stone sculpture measuring 3′ 6″ in height and 2′ in breadth. It depicts the birth of Gautama Buddha and the incidents which immediately followed, *namely*: (1) four Chief Brahmas receiving the new-born infant on a golden net-work, (2) four Lokapālas receiving him on a black antelope's skin from the hands of the Chief Brahmas, (3) four men receiving him on a beautiful white cloth from the Lokapālas and (4) the new-born infant walking seven paces flanked on his left by a Brahma holding over his head the white umbrella and on his right by two Devas, one carrying the golden fan and the other the golden sword. In three of the above incidents mention is made of four Chief Brahmas, four Lokapālas and four men, but in the photograph as on the stone itself only two of each kind of those beings are seen, the other two being hidden behind them. These representations of the incidents are in accordance with the Burmese version of the story of Gautama Buddha. The events are well known and are represented with slight variations on stone slabs in corridors and porches of the Ānanda[1] and also in wall-paintings as well as on stone slabs in some other temples at Pagan. But a unique feature, which the Kubyaukgale sculpture possesses is that on the top of the head of Māyā is a small figure seated cross-legged with the right hand placed on the right knee palm downwards and the left hand in the lap, palm upwards. This figure symbolises Buddha. It is interesting in that it stamps this sculpture as being of Bengal workmanship, of the Pāla School. Artists from Bengal and Nepal were then numerous at Pagan, and their work

[1] "The stone sculptures in the Ānanda Temple at Pagan" by M. Chas. Duroiselle, published in the Archæological Survey of India, Annual Report, Part II, for 1913-14, pp. 63-97, Plate XXXII, figs. 12-15.

may be seen in the frescoes of not a few temples, such as the Nandamaña, the Payathon-zu, the Abhéyadana. etc. But the Mahāyānism they brought over with them did not influence, in any marked degree, the Southern School of Buddhism then professed in Pagan.[1] Tradition has it that the Kubyaukgale was founded by King Kyanzittha (1084-1112 A.D.).

In classifying the artistic productions of Pagan, we can at once divide them into two distinct categories: mediæval and modern, that is—Indian and Burmese; although both the techniques bear a certain amount of family likeness.

The Burmese are comparatively late comers into this Province, having for a long time been nomadic. unsettled and divided by inter-tribal warfare, which no doubt must have retarded their development and unity. From the XIth century onwards their history begins to rest on solid and tangible facts, and is no longer on a basis of apocryphal and marvellous legends. This is borne out by geographical considerations and the state of civilization of the three principal nations which then divided the country among themselves. In the north, to the east of the Irrawaddy river, were the Burmese occupying what must have been then a comparatively restricted territory, with the Shans and other smaller tribes to their north-east and north: below them on the south and south-east, from somewhere about Toung-U and stretching through Tenasserim to Malaya, the Talaings or Môns, closely related to the Khmers of Cambodia; to the west of the Burmese, across the Irrawaddy, and extending from one point above Shwebo southwards to Hmawza (Old Prome), the Pyu, a people of Tibeto-Burman stock, but not closely related to the Burmese. These two old nations—the Pyu and the Môn—were colonized by Indians from across the Bay in the early centuries of the Christian era, if not before. They were known in India, Ceylon and China. in the opening centuries of our era, as the Pāḷi Commentaries and early Chinese writings show. Excavations carried out during the last twenty-five years have brought to light ample material testifying to their early civilization developed under Indian influence, to their possession of alphabets and letters and to their proficiency in the fine Arts[2]. Now. at the dawn of the history of the Burmese people, *viz.*. in the XIth century, they were practically surrounded by the Pyu and Môn, each with a thousand years of civilization. The Burmese themselves who had just finished coalescing into a unified nation had, on the testimony of their own historians. no letters and no art worth speaking of. This indicates that they had had very little intercourse if any, with their enlightened neighbours.

The conclusion is thus inevitable that the Burmese did not arrive in Burma long before the middle of the XIth century, or if they did, their internecine tribal warfare retarded their progress. There are indications that, for some time before that. there must have been Indians, traders and monks. among them, but their refining influence had not yet been deeply felt.

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[1] *Cf.* "The Ari of Burma and Tāntric Buddhism", by M. Chas. Duroiselle, published in the *Archæological* Survey of India, Annual Report, Part II for 1915-16, pp. 79-93.

[2] For instance, the Môn inscriptions found at Lopburi in Siam. ascribed to the VIth-VIIth cent., *are only the* oldest found *up to the present*: but Pāḷi sources indirectly testify to their being possessed of letters and religious literature long before that. Then there is the Pyu insciption found at Halingyi, near Shwebo, ascribed to the Vth cent., etc. *Vide* Report of the Supdt., Archl. Survey, Burma, for the year ending 31st March 1915, pp. 21-23.

All this changed suddenly in 1056-57 A.D. At that date, confident in their own strength, they swooped down on Thaton, the capital of the Môn and ravaging Hmawza, the hoary capital of the Pyu, sacked it, and brought back with them to Pagan, their king, monks, the Scriptures and commentaries in Pāḷi, architects, sculptors, painters and artists of every description, a large number of whom were Indians. Their polishing influence was very soon felt at the Burmese capital, and then began a period of extraordinary architectural and artistic activity, which lasted for well over two centuries, until Pagan was taken by Kublai Khan's forces in 1286 A.D., but the influence of which is still felt. From the Môn they received their new religion, the Theravāda Buddhism; from the artists, the Indians especially, their temples, paintings and other forms of art. The Burmese themselves tried their hand at architecture and art at a later date not before a century or more had elapsed. They were at first mere copyists, imitating simply what they had before their eyes, trying to reproduce every detail, even to the cast of countenance (which was then Indian); but they gradually and quite naturally, began to infuse their work with their own national tendencies. Thus the first statues had features which were a not unpleasant mixture of Indian and Mongolian characteristics, and then, by degrees, the Buddha and other figures were given a frankly Burmese cast, somewhat idealized: the same applies also to mural paintings. This evolution was practically completed by the end of the XIVth century. There is a tradition, referred to in the native chronicles that, previous to the XIth century, some four or five temples, not necessarily Buddhist, much less of the Hīnayāna School, had been built in Pagan. There is no reason to doubt the tradition, but owing to the total absence of contemporary documents, lithic or otherwise, it has not yet been possible to decide which they may have been.[1]

It may thus be stated that there is nothing in Pagan antedating the XIth century, either monuments, statuary, paintings or inscriptions that can be assigned to pure Burmese workmanship and that, for a period of one century or more after the conquest of Thaton in 1056 A.D., we find practically nothing but the handicraft of Indian artists, working, in some cases, under the instructions of the Môn monks.[2]

A simple glance at a statue or painting enables us to determine accurately, within a few decades, its date; whether it is of Indian or Burmese workmanship and whether it is Hīnayāna or Mahāyāna. Thus for instance a stone sculpture, enshrined in a niche in one of the corridors of the Nagayon temple (about 1100) showing Gupta influence, in the cast of features—the straight cut of the eyes, the long, pointed and slightly aquiline nose—is at once marked out as of purely Indian craftmanship and its date fixed as the latter half of the XIth or the early XIIth century. There are many such Buddha images in the earlier temples;

[1] But considering that in Pagan there were small colonies of Indians for some time previous to the XIth century, it is probable that there were more temples than that, but that these, as will be shown lower down, were mostly to be found some three or four miles to the south and south-east of Pagan.

[2] *Cf.* "Stone Sculptures in the Ānanda Temple at Pagan" by Chas. Duroiselle, published in the Archæological Survey of India, Annual Report, Part II, for 1913-14, pp. 63-97. It is only after the fall of Thaton that lithic inscriptions, plaques and votive tablets bearing inscriptions in Burmese, Pāḷi and even Sanskrit appear in Pagan.

they are replicas of one another in practically every detail, and give the impression that they were made to order *en masse*. They consequently show no aesthetic inspiration and have no artistic individuality, their principal merit lying in the fine chiselling of the Buddha's features. The small Gautama Buddha in the coiffure of Mahāmāyā in another example stamps it at once as a Mahāyānist sculpture, the use of such distinctive marks being unknown in the iconography of the Southern School, who revere only one Bodhisattva, *viz.*, Maitreya. It may be remarked that this cognizance or distinctive mark is entirely superfluous in this representation of Gautama and can only be explained as a slavish imitation of the Indian prototype before the artist.

One of the bronze images found among the *débris* covering the terraces of the Dhammayangyi (=Dhammaraṁsī), temple at Pagan, built by King Narathu (1187-91) is worthy of special notice. This statuette belongs to the early XIVth century and is thus later in date than the temple itself, but it is interesting in that it furnishes us with another example of the transition period in Burmese art as explained above. At this time, it is clear that the Burmese artists had not yet shaken off the influence of the Indian models they had everywhere before their eyes. The cast of the features is neither purely Indian nor purely Burmese, but a mixture of both; the transition from the Indian to Burmese facies though not yet entirely accomplished was on its way to be so. By the end of the XIVth or the beginning of the XVth century, the transition becomes a *fait accompli*. Another image, also found on the terrace of the Dhammayangyi, attributable to the XVth century is an excellent example of pure Burmese art in its infancy, when the artist has apparently abandoned his Indian models and begun to work under the promptings of his own inspiration and infuse into his work Burmese ideals. The Buddha figure henceforth appears under a Burmese cast of features, which become accentuated as the years pass by. The inscription in Burmese on the back of the throne, from the more or less round form of the characters, may seem to belong to a much later period than the XVth century. In reality, however, the rounded characters which succeeded the 'square' alphabets in lithic inscriptions at a later date, were long used in engraving inscriptions in bronze, perhaps owing to the ease of incising them on this material.[1]

A reference to my paper "The Arī of Burma and Tāntric Buddhism"[2] will make it clear that previous to the advent in Pagan of the Theravāda Buddhism of Thaton in 1056, the religion of the Burmese was a mixture of Shamanist superstitions, Nāga worship and some tāntric form of Mahāyānism. In the absence of any reliable record, it is impossible to say with any degree of certainty how long before the middle of the XIth century, Mahāyānists from Bengal and Nepal had begun to immigrate into Pagan; probably not before the late IXth or even VIIIth century. While this influx of Mahāyānism to some degree influenced the primitive religion of the people of Burma, it is clear that once the Burmese were

[1] *Cf.* L. Finot "Histoire de la literature Cambodienne" B.E.F.E-O.—King Sinbyushin, in the XVIth century cast a large bell and placed it near the Shwezigon pagoda at Nyaung-U, near Pagan; the two inscriptions on this bell, in Burmese and Môn, are in characters perfectly round, this form being easier to engrave on bronze than the square one.

[2] Archæological Survey of India Annual Report for 1915-16, p. 77ff.

converted to Hīnayānism introduced from Thaton, the power of Māhayāna rapidly dwindled. The Indian immigrants appear at this time to have been settled in the vicinity of Pagan,[1] between Min-nan-thu and Thiyipyitsaya[2]; the former 2½ miles to the south-east and the latter 3 miles to the south of the city. It is in these localities and the country between and around them that the inner walls of almost all the numerous temples, large and small, are decorated with very finely executed frescoes of an undoubtedly Mahāyānist and tantric character and belonging to the Varendra or Bengali-Nepalese school of painting, while such paintings are rare in the city itself and the country extending to the north-east of it. A comparison of the Pagan frescoes with the Bengali-Nepalese miniatures[3] reveals their close resemblance even in small details. A regular study of the interesting collection of photographs and drawings of paintings[4] preserved in the Mandalay Archæological Office would prove interesting and useful. It looks as if these Bengali and Nepalese artists, who were really very good at their craft, had been commissioned to decorate the interior walls and roofs of the temples.

A typical example of this Indian handiwork is a representation of Mahāmāyā after the conception of the Buddha found at Pagan. The Nidānakathā informs us that, after his conception, the Bodhisattva, like unto a jewel, could be seen as if enshrined in a cetiya in his mother's womb.[5] We see her seated cross-legged; she wears queenly vestments, a crown and a necklace; her hands seem to be in an attitude inviting the contemplation of the Great Being. The child, seated in the *vajrāsana* has both hands in the *abhayamudrā*. On either side of the queen, a lady attendant, in a kneeling posture, is presenting her with food. The one on the left is holding a flat dish with short legs, the food can be seen on the dish. The other is holding a bowl, probably of gold, full of food; it is engraved with a floral design which is not very distinct, but merely indicated. The physiognomy of the three personages is distinctly Indian of a Mongoloid type. So far as I can remember, purely Burmese paintings always represent Mahāmāyā in the Lumbinī garden in the well-known standing posture holding the branch of the tree and never after the Conception as we see it in the present figure. The actual representation of the child in his mother's womb is never seen in Burma, neither, as far as I can recollect, in other countries professing Hīnayānism. Such representation is a purely Mahāyānist conception; but in Mahāyānist iconography, such cognizances are perhaps inevitable if its numerous gods and goddesses are to be distinguished from each other. Without the cognizance of the child, the principal figure here would not be distinguishable from any of the numerous Tārās represented in Pagan in the very same attitude.

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[1] Pagan was founded in 849 A.D.

[2] In Myin-pagan also, a small locality still nearer Pagan, are some temples with Mahāyānist stone sculptures and frescoes, the principal of which are the Abhératanā and the Kubyaukkyi temples.

[3] *Vide* Foucher: "Etude sur l'iconographie Bouddhique de l'Inde" and Benoytosh Bhattacharya: "The Indian Buddhist Iconography, based mainly on the Sadhanamala and other cognate Tāntric texts". Humphrey Milford, Oxford University Press, 1924.

[4] Only a small number have been actually published—12, with the paper "Arī of Burma and Tāntric Buddhism"; 13, in Archæological Survey of India Annual Report, 1930-31; 4, 1931-32 and 3 in 1932-33. That is, 32.

[5] Fausboll's "Jātaka", Vol. I, the Nidānakathā, pp. 51-52.

The two lady attendants above, with their dishes, might by themselves alone have been an indication or cognizance of the personage the artist intended to represent.

Plate XXXI, *d*, shows a drawing of a very finely executed fresco found on one of the inner walls of a small unnamed temple (No. 449 of the office list of the monuments at Pagan) situated in a field to the north of Thiyipyitsaya village, some three miles to the south of Pagan. A glance at Buddha's *ushnīsha* points to the painting as the work of a Bengali artist. In Bengal, the *ushnīsha* was very pointed and placed far back on the head, while in Nepal, it was placed nearer the forehead. Several scenes in the Buddha's life are depicted; one or two of them are not easy to identify owing to there being nothing distinctive. In not a few of the paintings in some temples has the work been left unfinished. This is particularly noticeable in the Paya-thôn-zu temple at Min-nan-thu some two miles to the south-east of Pagan, where a large number of the figures and scenes are merely outlined, as if the artist had suddenly had to abandon his work. In the present fresco, however, in which many details are so faithfully drawn the artist seems to have forgotten to complete some details, such as the portion of the sea between the niche on the left hand bottom and the large fish in the lowermost panel but one; the face of the person seated in the building above the sea as well as the faces of the two uppermost figures have not been drawn in, and are merely in outline. But for these defects and a few patches where the plaster has flaked off, the painting is in perfect preservation.

The principal scene is the descent from heaven of the Buddha. We know how the Buddha, having performed the twin miracle in Kaṇḍa's Mango Grove near Sāvatthi, decided to visit his mother, who, after her decease had been reborn in heaven as the Santussīta deva, in order to expound to her—now him—the Abhidhamma. As he was about to descend back to earth, Sakka ordered Vissakamma to build up a triple ladder. In the large central panel is represented Mount Meru with its base submerged in the sea, and the Tāvatimsa Heaven in the panel on the top. Mount Meru itself is represented by the central large column, surrounded by the seven (the painting shows only six) concentric circles of rocks.[1] Of the triple ladder only one can be seen; it starts from the Tāvatimsa above Mount Meru, with its base near the gate of the city of Saṅkassa, which may be seen right below the ladder; the base of the ladder rests on a *makara*; this pretty motif of decoration is still common in the stairs of monasteries and temples.[2] The Buddha is seen descending; he is preceded by Brahmā Sahampati *minus* his umbrella, and Sakra, before whom can be seen Pañchasikha holding his lute; the personage behind the Buddha is not identifiable; but he may be Mātali or Suyāma, although he should have held a fly-whisk, which is missing. Sāriputta, who should be waiting for him at the foot of the ladder, has been omitted. The uppermost panel, of which only about one-third is

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[1] A practically identical representation of Mount Meru, but carved in the live rock, may be seen on Plate XXX, illustrating my paper on "The rock-cut temples of Powundaung" Archl. Survey of India, Annual Report, Part II, 1914-15.

[2] But, as in most cases, the *makara* has become very much stylised. In Nyaung-U, near Pagan, is an old monastery the stairs of which are encased by a complete *makara* resembling very much that in the present drawing.

extant, shows the Tāvatimsa Heaven. The lower part of the Buddha's body, seated in the *vajrāsana*, can be seen; he is preaching the Abhidhamma to the deva Santussita and the other devas. On the right of the ladder, near the top of Meru, is an Arahat worshipping; below him, a *yaksha* or *asura*, who seems somewhat startled; below this again is a building with three personages who appear to be arguing. On the right and left corners near the top of Mount Meru are two figures, each in a medallion resting on a *makara* from whose mouth and trunk issue flowery scrolls. In the medallion on the left is a personage riding on an elephant; this makes one think of Sakra; in the right-hand medallion, is a rider on horseback, Sūrya.

On the left of the lowermost central panel is shown the birth of the Bodhisattva; he is seen issuing from his mother's side; then making his first seven steps; the intermediary scenes, when he is received by Brahmā, etc., are omitted. Above this, in the middle panel, we see the Bodhisattva proceeding to the Bodhi tree, under which he attained Buddhahood. In the third panel is depicted the adoration of the relics, on the right by a Nāga king, on the left by what seems to be, from the head of a goose in his coiffure, a Brahmā.

In the lowest panel on the right, the Buddha is walking near the Gandhakuti in the Jetavana garden at Sāvatthi; on each tree there is a squirrel. In the second panel, the Buddha is in the wilderness of Pārileyyaka where he retired at the time of the quarrel among the monks at Kosambhī; we are shewn the elephant who used to bring him water, and the monkey who brought him fruits for his meals. Above this, in the third panel, is the Buddha seated in the *vajrāsana* with his hand in the *dharmacakra mudrā* (?); on either side of him, seated on lotuses, the stalks of which spring from the same root, are two smaller figures of Buddhas in the *abhaya mudrā*; below on the left side of the lotus stalk, is a king (Bimbisara ?) and his queen in the *namaḥkāra* attitude; on the other side of the root is a dancing girl with a man seated behind her, his left hand on the heel of the girl, and his right arm stretched behind her, the hand resting on her right shoulder. In the uppermost panel, is another scene representing the adoration of the relics; the worshippers are ordinary men; this scene is the counterpart of the one on the left.

The painting reproduced in Plate XXXI, *e*, was found in the Sayambhū temple at Pagan (XIII century A.D.). It represents the conversion of the ogre Āḷavika, who was a devourer of human beings. The Buddha is preaching to him; the building in which he is seated, with its multiple roofs, is almost a perfect example of modern Burmese architecture, as for instance, the monasteries, the Palace at Mandalay and the turrets on the outer walls of the Mandalay City. Āḷavika is shewn twice; on the ground are four women in a worshipping attitude, and above them, four monks. What remains of the Burmese inscription below reads; "iy·kā khak htan cvā so philī Āḷavika kuiw purhā-sikhañ chumma....": that is: "This (painting represents) the Buddha converting the ferocious ogre Āḷavika".

The four figures which follow are very much later than the preceding ones; they are separated from them by a period of about three or four centuries. The

Varendra school of Bengal seems to have ceased its activities in Burma by the end of the XIIIth Century; this was probably due to the invasion of Kublai Khan's Tartars in 1286-87 and the subsequent abandonment of Pagan as the capital a few years later. But its traditions did not completely disappear and its influence, though gradually dying out, was still felt in Burmese painting for a somewhat lengthy period, through which Burmese technique and national genius steadily asserted themselves.

These four frescoes were photographed direct from the walls of the Upāli *Thein* (sīmā), a protected monument situated about midway between Nyaung-U, on the Irrawaddy and Pagan, and quite near the Tilominlo temple, one of the most impressive buildings of Pagan. This *sīmā* or ordination hall, was named after a celebrated monk, Upāli, who became primate of Burma; he lived during the reigns of kings Nandaungmya (1210-34 A.D.) and Kyazwa (1234-50 A.D.) and the foundation of this building may therefore be assigned to the second quarter of the thirteenth century A.D. The frescoes adorning its walls are, however, not so old, and may belong to the late XVIIth or early XVIIIth century. The first figure represents Rāhula, the Buddha's son, becoming a novice in the Saṅgha. The scene of action is Kapilavastu; Yasodhara, the mother of Rāhula, had asked her son to go to his father and ask him for his inheritance; the latter makes him over to his three famous disciples, Sāriputta, Moggallāna and Mahakassapa for his preparation and initiation. On the left, seated on a throne, is the Buddha; it will be noted that his robes are not quite in the same style as those of the monks; which is perhaps in order to distinguish him, not only as being the Buddha, but also a prince. On his left are the three great disciples named above; the young prince Rāhula, now a novice in monkish garb, stands near them; to the right, are three young princes kneeling.

Another fresco represents the Buddha Vessabhū, one of Gautama's predecessors, abandoning his palace to renounce the world. He is carried by eight men in a palanquin with a double circular roof; the men are dressed in sarongs, as still worn; behind the bearers on the left, are officials carrying white umbrellas; on the right, close by the four bearers, are two *devas*, bearing torches aloft to light the Bodhisattva's way; and near them is Māra, endeavouring to persuade the Prince to renounce his project. Right in front of the palanquin is a small boy carrying a bowl or cup.

Plate XXXII, *a*, shows a painting representing prince Siddhattha leaving his palace to go into the wilderness. He is riding his horse Kanthaka, and behind the faithful Channa is hanging to its tail; behind him are two devas; in front of Kanthaka, three other *devas* are lighting up the way with torches; and on the extreme right Māra, lifting up his right hand, tries to dissuade him from carrying out his intention.

Plate XXXII, *b*, represents an ecclesiastical ceremony, being the rehabilitation of a monk who has committed an offence that can be expiated only by undergoing penance.[1] The monk who is being rehabilitated is second on the

[1] V. Oldenberg, "The Vinaya Pitakam" in Pāli, Vol.I, p. 49.

left, kneeling with his hand in the *añjali-mudrā*; in front of him, is the *upajjhāya* or spiritual teacher reading the appropriate text in the Kammavācā. The other monks are members of the community assisting at the ceremony.

Plate XXXII, *c*, is a photograph of the Upāli Thein (Upāli-sīmā), an Ordination Hall, XIIIth century A.D. It is a small but very graceful building where ecclesiastical ceremonies were performed. It is probably the only old and well-preserved monument of this character in Burma; and in this fact, as also the quaint paintings which adorn its walls, lies its interest.

EXPLORATIONS IN CENTRAL INDIA.

By Mr. H. L. Srivastava.

In connection with my tour in Central India and Rajputana I visited Omkar (Khandwa District), Maheśwar, Choli and Sendhawa (Indore State), Nagda (Dewas State), Gandhawal and Ujjain (Gwalior State).

OMKAR.

The temple of Omkar is situated on the island of Mandhata on the north bank of the Narmadā (Plate III, *a*). Opposite to it on the southern bank stands the temple of Amareśwar. Both are stated to have been destroyed by Mohammad Ghazni on his way to sack Somnath (1024 A.D.); but subsequently repaired by the late Raja of Mandhata who claimed descent from the Chauhan Bharat Singh who took Mandhata from Nathu Bhil in 1165 A.D. The Amareśwar temple contains the well-known *Mahimā Stotra* (a panegyric of the God Śiva) engraved on two slabs fixed in the passage of the temple on either side. It is dated Samvat 1121 (1064 A.D.).

Opposite Mandhata island and close to Panthia village was found lying in a gorge of the Vindhya range a broken image of Charchika erroneously called Rāvaṇa. The image which measures 19′×5′ 9″×2′ 4″ has 10 hands, a rat near the waist, a scorpion (14″ long) above the contracted abdomen with the left foot placed on a lion and the right on a prostrate figure of a man. It may be assigned to the 9th-10th century A.D. Close by are seen groups of images of the same period which formed part of a temple.

About a furlong south-east of Panthia village there is another temple known as *Chaubīs Avatār*. But nothing except the sanctum and the oblong *maṇḍapa* have survived. Inside the sanctum, besides *liṅgam* and a Boar were found arranged in a row, images of the incarnations of Vishṇu. The images which belong to the 11th century A.D. do not form part of the temple. They were brought from the ruins of temples near about and kept here.

MAHESWAR.

Maheśwar which is 28 miles to the west of Barwaha Railway Station is picturesquely situated on the north bank of the Narmadā. It is undoubtedly a historical place but there is no unanimity regarding its identity with ancient Mahishmati. Kālidāsa while describing the city of Mahishmati in Raghuvaṁśa

(Canto Vi. 63) calls the Narmadā 'the girdle around the hips that were the bastions of the city' which corresponds more with the situation at Omkar rather than Maheśwar. The same view is held by V. Smith.[1] Cunningham[2] identifies the place with Mandla in the Central Provinces. It was famous for its cotton fabrics[3] in the Mauryan period. The names of various donors from Mahishmati, *e.g.*, Devabhāga, Arithadatta (Arhadatta) and Ratina engraved on the Sāñchi Stūpa[4] go to show the opulence of the people and also their religious fervour. Its importance was further heightened by its location in the direct route between north and south. Mahābhārata (*Udyogaparva*) mentions it as 'lying on the road to south'. The same fact is mentioned by Rhys Davids (*Buddhist India*, page 103) when he says that Maheśwar formed 'one of the regular stages on the route from Paithan in the Deccan to Śravastī in Nepal'. The place was visited by Hiuen Tsang (7th Century A.D.) and also by Al Birūni (11th Century A.D.) who calls it Mahmura. After the Haihayas it fell into the hands of the Parmaras of Malwa. It lost its importance under the Muhammadan kings of Malwa till 1760 A.D. when Ahalyā Bāi raised it to the status of a capital. Much of ancient Maheśwar is buried underneath. There are ruins about 30 feet below the top close to Mandel Khoh on the north bank of the Narmadā where deposits of pottery are found. They are thick coarse pieces without paintings. Some of the roof tiles with grooves are interesting. The large sized bricks (20″×11″×3½″) which are found in abundance and the roof tiles may take the site back to the 6th Century A.D.

CHOLI.

This is an old village 8 miles north-east of Maheśwar which contains many ruins of temples. The temple of Bhaironath has been considerably renovated and the images lying near about belong to the 10th Century A.D. In the dry bed of a tank are found fragments of bricks and stone architectural fragments of some ruined temple, which were apparently washed down from the hill slopes during the rains.

SENDHWA.

The Fort at Sendhwa is an unpretentious but lofty stone structure of the Muhammadan period as shown by the battlemented walls and the disposition of the two gateways on the north and south. Inside the Fort are situated several modern buildings including a Śiva temple by the side of a tank on the east. Further west and on a slightly raised level are seen the remains of walls of residential quarters standing to a height of about 7′. Inside an enclosure on the south-west are remains of a high wall built of *lakhauri* bricks and the mouth of a subterranean passage, which is said to have connected this Fort with Bhairongarh Fort about 10 miles north.

[1] *Early History of India*, p. 136n.
[2] *Ancient Geography*, p. 559.
[3] *Arthaśastra*, Bk. II, Chapter 12.
[4] *Epigraphia Indica*, Vol. II, p. 95.

Gandhawal.

Gandhawal, situated 31 miles east of Dewas, is a flourishing town with a preponderance of Jainas. The place is supposed to derive its name from Gandharvasena to whom is attributed a Śiva temple of the 11th-12th Century, situated north of the rivulet called *Khal.* The temple has been considerably renovated of late, but the sculptures found therein reveal its antiquity. In one of the western niches is placed an image thickly bedaubed with paint, which may be identified as that of Hayagrīva. In the two niches on either side of the entrance to the temple and facing the open court which was once surrounded by a *maṇḍapa* are found the images of Vāmana and Yama. Other images of Brahmanical gods and goddesses are arranged in a row outside the temple, noteworthy among them being a standing Sūrya (5′ high), Vishṇu, Lakshmi-Nārāyana and Mahishamardini. Towards the south of the temple is another group of sculptures containing Vishṇu reclining on the serpent Sesha and two standing images one of which is a bearded *muni.*

Inside the village are found many temple ruins and images, mostly Jain, some of which are about 10 feet high. Even the stones used in a Muhammadan graveyard here are invariably the broken architectural members of old temples.

If possible, the sculptures should be collected together and arranged in an open air museum as at Khajuraho.

Nagda.

In this village which is situated 6 miles south of Dewas in the territory of Dewas Senior, are found the remains of a few temples and images belonging to about the 12th Century A.D. Tradition avers that the name Nagda is derived from Nāgadāha 'burning of the snakes' Janamejaya of the Mahābhārata fame is said to have burnt the snakes on the banks of the local tank which is close to Nīlakaṇṭheshwar temple. Except an unpretentious structure known as *Padmani ka mandir,* which is in a dilapidated condition with jungle growing all around and another ruined temple and an old well (*baoli*) there are no other remains of antiquity. A subterranean passage here is said to connect with Ujjain, about 30 miles away.

Ujjain.

Nothing to denote Ujjain's great past exists now. The sculptures and carvings with which the *Ghats* on the Sipra river are adorned belong to the Mediæval period. The monuments which are of archæological interest are only 6 in number, *viz.*, (1) Bhartrihari Cave, (2) Chaubis Khamba gate, (3) Bina nim-ki-Masjid, (4) Kaliadeh water palace, (5) Old Sarai, and (6) Jai Singh's astronomical observatory. The first two are Mediæval while all others are of Muhammadan and even later times. The sculptures stored in a *verandah* adjacent to the Mahakāl temple are fine pieces mostly of the mediæval period and are proposed to be exhibited in a Museum by the Archæological Department of the Gwalior State (Plate XXXIII, *b*). The Mahakāl temple collection includes a *sarpabandha* or snake-shaped inscription like that found on Chabara Dera No. I at Un (Indore State)

The Gwalior Darbar have sanctioned construction of a temple to house a quadruple image of Vishṇu of about the 10th Century A.D. (Plate XXXIII, *c*) now lying close to the Hanuman temple. The four sides of the image are all alike and can only be distinguished by the distribution and arrangement of *śaṅkha, chakra, gadā* and *padma.*

Ancient Ujjain is buried on the banks of the Sipra known as Gadh and a series of mounds lying close to Bhartrihari Cave. From the deep ravines near Bhartrihari Cave a few potsherds, roof tiles, shell bangle pieces, etc., were recovered which appear to be of the same period as the finds which were brought to my notice at Maheśwar about the 6th Century A.D.

EXCAVATIONS AT SĀÑCHI.

Mr. Hamid, Archæological Superintendent, Bhopal State, has brought to light the remains of a monastery situated to the east of Stūpa No. 2, between the begging bowl and the old tank. The mound which covered this monastery was noticed by Sir John Marshall. While describing the remains near Stūpa No. 2, he says, "North of these, again, and partly cut through by the modern road, is an extensive mound of stone-rubble and brick which marks the site of a mediæval monastery" (*Guide to Sāñchi*, p. 135). The monastery as laid bare appears to be square in plan with entrances about 10′ wide on the west and east and a court of cells (measuring 12′×7′) with a *verandah* in front. The courtyard in the middle has a drain towards the south-west corner. The total length exposed on the west side is 110′. The cells on the west and the south have been cleared to the floor level while those on the east and north still remain to be excavated (Plate XXXIII, *a*).

Among the antiquities brought to light mention may be made of small beads of agate, carnelian and crystal; western Kshatrapa coins; copper coins of Andhra and Kushan; plaques of grey-stone one of them containing a figure of Mahishamardini; images of Vishṇu (ht. 14″) and Garuḍa (ht. 2½″) of the mediæval period, and a small rectangular seal (measuring ·6″×·4″×·2″) with *buddhapada* on the top and three indistinct letters in Brāhmī below. A detailed report will be given after the completion of the excavations next year.

EXCAVATIONS AT BAIRAT.

By Rai Bahadur Daya Ram Sahni, C.I.E., Director of Archæology, Jaipur State.

This is the first systematic excavation carried out by the Jaipur State and the interesting results achieved augur well for future archæological research. The town of Bairat, the traditional site of the capital of Virāṭa of the Mahābhārata fame, and the well-known find-spot of two Aśokan edicts is situated in a picturesque valley, 52 miles from the city of Jaipur and now easily accessible from Delhi by a first-class metalled road. The ancient remains at Bairat, the exploration of which was suggested to me by Rai Bahadur Pandit Amarnath Atal,

Finance Member, Council of State, Jaipur, lie on a rocky hill, 200 feet in height, at the south-west corner of the valley, whence the ancient route led out to Jaipur. The top of the hill is about 400 feet from east to west by about 190 feet wide. It is divided into two well defined terraces, the one 30 feet higher than the other. About a hundred years ago, considerable damage was done to these ruins by a private explorer, named Kiladar Kitaji, and the brick walls brought to light were dismantled and carried away by the villagers. A gold casket is stated to have been found in the course of those diggings.

My own excavations revealed on the lower terrace a unique Buddhist temple or *chaitya*, circular in plan, 27 feet in diameter, and surrounded by a circum-ambulatory passage (Plate XXXIV, *a*). The inner wall of the temple is built in a peculiar style, consisting of sections of brick walling alternating with 26 octagonal wooden pillars, the charred bases of which alone had survived. The ceiling also consisted of wooden beams covered with well-baked pottery tiles and finished off with a tall terracotta finial in the fashion of the shrines represented in the Bharhut reliefs. The bricks in the temple wall are wedge-shaped, 20 inches long by 9 to 12 inches wide and 3 inches thick. Those in the outer wall have the regular dimensions of 20 inches by 10 inches by 3 inches in thickness. The temple was entered from the east and charred remnants of the wooden door frames, together with iron discs in which the tenons of the doors swung, clamps and nails of varying sizes had survived where they fell when the temple was burnt down (Plate XXXIV, *b*). At a later date the temple was surrounded by a rectangular enclosure wall and several bricks in it, which had originally belonged to the temple, are found to be engraved with Brāhmī characters, possibly remnants of an Asokan edict with which the temple walls had been adorned.

This is probably the oldest known structural temple in Northern India and one of those which supplied models for the numerous rock-cut cave temples of Western and Eastern India. The nearest approach, both in plan and design, to this newly discovered temple is the *chaitya* cave of about the 1st century B.C. in the Tulja Lena group at Junnar. This latter is about the same size as the temple unearthed at Bairat and has the same internal arrangement, with only this difference that whereas the sanctum in the cave temple in question is surrounded by a circular row of 12 rock-hewn pillars, the temple at Bairat consists partly of brick and partly of wooden columns. The interior of the temple at Bairat had unfortunately been cut away by the previous digger referred to above, but if, as is almost certain, the Junnar temple is a reproduction of the type of temple at Bairat, the object of worship in the latter must also have been a *stūpa*. And as this temple was undoubtedly the work of Aśoka, the *stūpa* may have contained a body relic of the Buddha. One or two bits of brick-work from the base of the *stūpa* in question have survived *in situ* and I was also fortunate enough to find, both in and around this temple, fragments of a large stone umbrella of Aśokan workmanship (Plate XXXIV, *c*) and a few fragments, which fit together, of a large bowl of the same material and similar technique. The umbrella as usual surmounted the *stūpa* and the bowl may have been the receptacle in which the gold reliquary referred to above was enclosed and deposited in the *stūpa*.

The only other brick structure that has survived on the lower terrace is a rectangular platform composed of two courses of large but thin bricks, which may have been used on occasions of ordination of novices (*sāmaneras*). The rest of the area on this terrace was dug down to the original bed of the rock and found to be strewn with colossal boulders, the intervening spaces being filled up and levelled with a thick layer of red gravel which abounds in these hills. My excavations here revealed several thousands of pieces of polished and unpolished Chunar sandstone representing a portion of the débris of two Aśokan pillars, which had been battered to pieces, probably by the Huns in the 6th century A.D. These pieces included one large fragment from the junction of the upper polished and lower rough surface of the shaft of one of these pillars and another from the summit with the tapering hole which held a long and stout copper bolt to support the capital. One or two tiny pieces broken from a figure of a lion show that the columns were as usual crowned with statues of one or the other of the four noble animals of the Buddhist texts. In 1907-08 I had the good fortune of discovering the well-preserved capitals of the two Aśokan pillars at Rampurva in the Champaran district, which were believed to have long since been converted to road metal. The present excavations establish the former existence of two Aśoka pillars at Bairat raising the number of such pillars known to us to sixteen.

The upper terrace was reached from the lower by a broad staircase, which unfortunately has lost the original treads. Here my excavations brought to light fragments of a large monastery (Plate XXXIV, *d*) consisting, unlike the type familiar to us, of two or three ranges of cells on each side of a central quadrangle. This building had been rebuilt at least twice at short intervals of time. The bricks are of the same large and regular size as those employed in the outer wall of the temple referred to above. In the thickness of the east wall of the monastery I found a small earthen jar containing 36 well preserved silver coins: eight of the punch-marked type and the remaining 28 of the Greek and Indo-Greek kings, the earliest being Heliokles (circa 140 B.C.) and the latest Hermaios (circa 20-45 A.D.). This interesting find shows, in the first place, that punch-marked coins had continued in circulation down to the 1st century A.D. and secondly that the monastery was still in occupation in the middle of the 1st century A.D. As, however, no objects of a later date than the 2nd century A.D. were met with, the whole establishment must have been deserted about this date, perhaps temporarily. As hinted above, it was, however probably not until the 5th or 6th century A.D. that the site met its final destruction at the hands of the invading Huns. The punch-marked coins in the hoard were found wrapped in a piece of cloth which has been kindly tested for me by Dr. N. Ahmad and Mr. Gulati of the Indian Cotton Committee, Bombay, and found to be true cotton cloth. The use of this textile in the Chalcolithic period is already known to us from the discoveries at Mohenjodaro. This, however, is the first specimen of such material dating from the beginning of the Christian era. Other objects found in this monastery included terracotta figurines of dancing girls or Yakshīs in the same style as those in the Bharhut reliefs, numerous fragments of alms bowls of fine polished clay which had been repaired with copper rivets and other pottery

vessels of various kinds, but no specimen of the water bottle of the Buddhist monk, so familiar to us from other Buddhist sites.

A noteworthy feature of the excavations is the total absence, among the finds, of representations of the Buddha in any form or material. This is in full accord with the now established view that the Buddha image was not evolved until about the 2nd century A.D. Had it been otherwise, an important Buddhist centre like Bairat would certainly not have failed to yield such sacred relics.

M. Renaud identified Bairat with Po-le-ye-to-lo of the Chinese pilgrim Hiuen Tsang. My own excavations yielded no evidence to corroborate this identification. The discovery of only one monastery in place of the eight mentioned by the Chinese pilgrim in connection with Po-le-ye-to-lo seems to militate strongly against M. Renaud's view. It is true that the present town of Bairat, distant about two miles from the remains explored by me, stands on a lofty artificial mound which may contain various strata of Buddhist buildings. It appears to me, however, that had the other seven monasteries, seen by the Chinese pilgrim, been situated inside the town, that keen observer would not have failed to say so.

I found interesting evidence to indicate that a small valley, to the south of the Buddhist establishment, was inhabited in the prehistoric period. This valley contains several irregularly shaped platforms with retaining walls of uncut boulders and covered with red gravel. I examined a few of these platforms and in one of them I found a quantity of primitive pottery and a chert flake similar to those found on the sites in the Indus valley. Another object of the same kind and several flint cores were also found, strange as it may appear, on the lower terrace of the Buddhist site. I am inclined to think that these latter artifacts must have been carried with the red gravel from the valley down below.

SECTION III.—EPIGRAPHY.

SANSKRIT EPIGRAPHY.

By Dr. N. P. Chakravarti.

Collection and decipherment of inscriptions.

Three small but interesting inscriptions were discovered by Prof. A. S. Altekar of the Benares Hindu University, in course of an exploration tour in the Kotah State, C. I., organised in March last, by the History Officer of the State. They were found at Baḍvā, a small village, about 30 miles from Kotah and 4 miles to the south of the Kotah-Bārān road, engraved on stone pillars lying outside the village in a locality known as Thāmb-Toraṇ. Of the four pillars originally installed, three complete ones were found *in situ* and a fragment of the fourth was discovered lying at a distance of about two furlongs from the others. It was also found that a portion of the fourth pillar was later converted into a *satī*-stone, on one side of which is still visible the word *yajñō* written in the characters of the third century. In the inscriptions found on the three pillars *in situ*, the latter are called *yūpas*. Each of them has a *chashāla* about 8 inches below the top as directed by the *śāstras* and the tops are also bent inwards. The writing on them, however, is vertical, reading from bottom to the top and not horizontal as found in the *yūpas* from *Isāpur* and Bijaygaḍh. According to the sacred texts the *yūpas* should be made of particular kinds of wood. But all the *yūpas* which have been discovered so far, are found to be made of stone. Probably Professor Vogel is right in his suggestion that the stone *yūpas* are merely the copies of the wooden ones and were erected to perpetuate the memory of the sacrifice performed. Two of these *yūpas* have only one line of writing each and the third two lines. The characters belong to the third century A.D. and the language is incorrect Sanskrit. The inscriptions record the performance of a *Trirātra* sacrifice by each of the three brothers Balavardhana, Sōmadēva and Balasiṁha, the sons of the *Mōkhari Mahāsēnāpati* Bala. They are all dated Kṛita 295, the 5th day of the bright half of Phālguna. Referring the date to the Vikrama era, it will be seen that these are the second earliest records discovered in that era, the earliest being the year 282, also found in a *yūpa* inscription at Nāndsā in the Udaipur State. It is also interesting to note that they record a gift of one thousand cows by each performer of the sacrifice which is the exact number prescribed by the *Dharmaśāstras*. *Mahāsēnāpati* Bala is designated in the inscription as *Mōkhari* which certainly stands for Sanskrit *Maukhari*. Many years ago Cunningham discovered at Gayā a seal bearing the legend *Mokhaliṇam* inscribed in Mauryan Brāhmī script which points to a very ancient tradition for the Maukhari family. We also know from the Barābar and Nāgārjuni Hill cave inscriptions of another Maukhari family headed by Yajñavarman and belonging to a period much earlier than that of the Maukhari rulers of Ayōdhyā. The present records are even

earlier than the Barābar and Nāgārjuni Hill cave inscriptions and are thus the earliest dated Maukhari inscriptions discovered so far. Unfortunately nothing is known about Bala from these inscriptions, excepting that he was a *Mahāsēnāpati* which title would, at the age of the inscriptions, ensure for him a very high position. Professor Altekar who is editing these inscriptions in the *Epigraphia Indica* thinks that he was probably a subordinate of the Kshatrapa Vijayadāman who is known to have ruled from 238 to 250 A.D.

In course of the two tours which I undertook during the year, I found a few new inscriptions and also copied others which have not yet been properly studied. At Rewa itself I found three new inscriptions. The earliest of these is found on a big slab of stone which is now preserved in the guard-hall in the old palace at Rewa. It appears that the slab was once built into the wall of the Zanana Mahal from where it was removed a few years back and kept in its present place. Nothing is known about its provenance but most probably this slab was also brought from Gurgi like many of the other inscriptions and statues which are now kept in the State Treasury or in the compound of the Prince's Palace. The writing covering a surface of 7′ 1″×3′ 1″, has been badly damaged on all sides except at the top. The inscription is divided into two parts. The first part containing 33 verses, gives the following genealogy of the Kalachuri rulers of Ḍāhala: from the Moon, Budha; his son Purūravas; in his family Bharata and in course of time the Emperor Haihaya (Sahasrārjuna) who captured Rāvaṇa and who was followed by many other kings of the family. The first historical ruler mentioned is Lakshmaṇarāja who conquered the kings of Vaṅgāla, Pāṇḍya, Lāṭa, Gūrjara and Kāśmīra countries. His son was Yuvarājadēva; his son Kōkkalla; his son Gāṅgēyadēva who defeated the rulers of Kīra, Aṅga and Kuntala. Gāṅgēya 'raised a column of victory on the seacoast in the shape of his arm by defeating the king of Utkala'. His son was KARṆA to whose time the inscription belongs and to whom as many as eleven verses are devoted but they contain very little historical information except that he attacked Kuntala, Kāñchī and the Gūrjara country and brought under his power the kings of the Himālaya. Many of the verses occurring in the first part are also found in the Goharwa Plates of Karṇadēva (*Ep. Ind.*, Vol. XI, pp. 142 ff.). The second part apparently contained the purpose for which the inscription was incised but as the lower portion of the epigraph is very badly damaged nothing can be made out with certainty except that the person who was responsible for its engraving was born in the Kāyastha lineage. The date of the inscription, if there was any at the end, is now lost. The second is a smaller inscription on a stone which is now preserved in the Treasury at Rewa. The inscription though badly effaced is interesting. Only a portion of the name of the ruler is preserved as *Srīmad-Vi....dēva* which undoubtedly refers to the Kalachuri ruler VIJAYASIṀHA. He is mentioned as meditating on the feet of the *P. M. P.* Vāmadēva and bears the title of *Trikaliṅgādhipati* along with the other usual epithets of the Kalachuri rulers. The record bears a date in 3 digits of which the first two can be read as 9 and 6. The reading of the third digit is not certain but it may be 2 in which case the date is to be referred to the Chēdi year 962 (=A.D. 1210-11). The inscription was issued from Tripurī and bears

the names of several officers among whom is mentioned the *Maṇḍalīka* Malayasiṁha. This personage is possibly identical with the officer of the same name who was responsible for the excavation of a tank as recorded in his Rewa inscription of the Chēdi year 944 (=A.D. 1193). The earliest known date of Vijayasiṁha is the Chēdi year 932 (=A.D. 1180-81) found in his Kumbhi Plates. His latest date so far known was V.S. 1253 (=A.D. 1196) mentioned in the Rewa plates of his feudatory the *Mahārāṇaka* Salakhaṇavarman of Kakarēḍī. The present inscription therefore increases the period of his reign by about 15 years and shows that he must have enjoyed a long reign of over 30 years. The object of the record cannot be ascertained owing to the damaged condition of the writing but it appears to have contained the grant of some land in the village of Dhōṭṭavāḍa or of the village itself. Of the officers mentioned in the inscription the names of the *Saṁdhivigrahika* Lakhaṇa and the *Mahāpratihāra* Bhīmasiṁha can be read with certainty. The third is a set of two copper plates said to have been found in 1929 in the village of Dhurehti about 7 miles from Rewa by a cultivator while ploughing his field. The plates have raised rims and are strung together with a ring. There is a seal attached to the ring bearing the figure of *Gaja-Lakshmī* in relief at the top and a legend in one line below it which reads: *Śrīmat-Trailōkyamalla.* When the plates were received by me the ring was found already cut but there can be no doubt that the ring and the seal belong to the plates under consideration. The inscription is dated Monday, the 7th day of the bright half of Jyēshṭha of the Chēdi Saṁvat 963 (=A.D. 1212). The date is irregular unless *Sōmē* is an error of the engraver for *Saumyē* in which case it would correspond to Wednesday the 9th May, A.D. 1212. The record mentions TRAILYŌ(LŌ)-KYAMALLADĒVA as the ruler who is evidently identical with the king mentioned in the Rewa grants of V.S. 1297 and 1298 of the time of the *Mahārāṇakas* Kumārapāla and Harirāja of Kakarēḍī. In the present inscription, however, Trailōkyamalla bears the epithet *Kānyakubjādhipati* and not *Trikaliṅgādhipati.* As has been generally accepted this Trailōkyamalla has to be identified with the Chandēlla ruler Trailōkyavarman, though he bears all the epithets used by the Kalachuri rulers including the phrase *Vāmadēva-pādānudhyāta.* The record contains a deed of mortgage (*vittabandha*) or sale of the village Alīrā situated in the Dhōvahaṭṭa-*pattana* of the Dhanavāhi-*pattalā* (division) given by the Śaiva teacher Śāntaśiva, the son of the royal preceptor Vimalaśiva, to the *Rāṇaka* Dharēka, the son of Sēvarāja (Śivarāja) and the grandson of Rāsula. The property seems to have been transferred by Nādaśiva who was authorised to do so by his elder brother Śāntaśiva. Towards the end of the record are found the names of witnesses after which comes the name of the *Ṭhākur* Gōllana who seems to have taken possession of the property on behalf of the mortgagee. The officers mentioned in the deed are: (1) the *Maṇḍalika* Malayasiṁha, the (Chief) Minister; (2) *Ṭhākur* Haripāla, the Minister in charge of Foreign affairs; (3) Vāhaḍa, the city-prefect (*Kōṭṭapāla*) and (4) the merchant (*śrēshṭhin*) Chaṇḍa, the writer of deeds (*arthalēkhin*). The document was written by the Pandits Viśvēśvara and Gaṅgādhara and engraved by Sīruka. There are certain interesting facts found in this inscription which deserve consideration. We have seen from the last

mentioned inscription that the Kalachuri Vijayasiṁha was still holding sway over this part of his kingdom in the Chēdi year 962. The present record, however, shows that a year later, at least the portion of the Kalachuri kingdom round about Rewa had already passed under the Chandēlla ruler Trailōkyavarman. Moreover, it seems reasonable to assume that Malayasiṁha of the present record is no other than the Malayasiṁha mentioned in the Rewa inscriptions of the Chēdi years 944 and 962. We have thus to admit that one of the chief officers of the Kalachuri ruler Vijayasiṁha not only transferred his allegiance to the conqueror but was also appointed by the latter as one of his ministers—probably the Chief Minister. What led to his being so rewarded we cannot say. Probably he was an important chief in this part of the country and like the chiefs of Kakarēḍī, he also transferred his allegiance to the victorious ruler and thus saved his property from being confiscated. The Śaiva ascetic Vimalaśiva mentioned in this inscription is, I think, no other than the *Rājaguru* Vimalaśiva mentioned in the Jubbulpore Kotwali Plates of Jayasiṁhadēva of the Chēdi year 918. Probably after the Chandēl occupation of this tract, these Śaiva ascetics having lost the royal patronage, had to mortgage or dispose of their property, granted to them by their royal disciples, the Kalachuri rulers of Ḍāhala. As regards the place names mentioned in the inscription, Dhōvaṭṭa-*pattana* seems to be identical with Dhurehti, the find spot of the inscription.

At Ajaigarh I copied most of the inscriptions in the Fort. Unfortunately it was not possible to copy all the inscriptions as some of them have been completely coated with lime. A few of these inscriptions have already been published and some others noticed by Cunningham. I shall therefore confine myself in considering only those which have been scantily noticed by Cunningham or still remain unnoticed. An inscription on a block of stone bearing an image of Gaṇēśa in relief, lying below the path leading to the Gaṅgā-Yamunā Kuṇḍa has been noticed by Cunningham but the information supplied by him is very meagre. It is dated *Samvat 1337 Māgha-sudi 13 Sōmē.* The date is given both in figures and words which, taking the year as expired, regularly corresponds to Monday. 3rd February A.D. 1281. The record gives the names of the Chandēlla rulers from Kīrttivarman down to VĪRAVARMAN and also a line of officers connected with these rulers as detailed below. There was one Lakshmīdhara born in the Gauḍa family who was 'an ornament' in the Kingdom of Kīrttivarman. His son was Yaśaḥpāla, a minister of Salakshaṇavarman; his son Śrīdhara was an officer of Jayavarman; his son Gōkula was a minister of Pṛithivīvarman; (his son) Bhōja (?) flourished during the reign of Madana(varman); his son was Mahīpāla, an officer of Paramardin; his son was Gaṁgādhara[1] who became a favourite of Trailōkyavarman; his son Jagaddhara was a minister of Vīravarman; he had two brothers Gaṇādhīśa and Vaṇādhipa. Gaṇādhīśa or Gaṇapati as he is subsequently called, had two sons the younger of whom was Rajapati, the name of the elder not being clear. It was Gaṇapati who had this image known as Dāṇī-Vināyaka consecrated. In a ruined Jaina temple to the west of the Ajaipal tank

[1] This may be identical with Gaṅgādhara mentioned in the Rewa plates of Trailōkyavarman, mentioned above.

I found an inscription on the pedestal of a colossal image of Śāntinātha which has not been noticed before. It is dated *Saṁvat 1335 samayē Chaitra sudi 13 Sōmē* in the reign of VĪRAVARMADĒVA. Taking the year to be Kārttikādi the date regularly corresponds to Monday, 27th March, A.D. 1279. The inscription records the installation of the image by the *sādhu* Sōḍhala, the son of the *sādhu* Sīḍhala and Dēvakī residing at the Jayapura-durgga (Ajaigarh Fort). There is another inscription in four lines which is engraved on a rock to the right above a group of female figures, a little below the upper gate in the same Fort. All that Cunningham has said about this record is that it contains the name of Kīrttivarman in the fourth line. But it contains other interesting facts as well which Cunningham failed to notice. The inscription opens with a salutation to Chaṇḍikā after which is invoked Nīlakaṇṭha (Śiva) and the hill Kālaṁjara. It then mentions that from Padmāsana (Brahman) was born Kaśyapa who was the originator of the Vāstavya family. In this family was born Jājūka who by bestowing 'the sole lordship of the earth' on King Gaṇḍa received from the latter, as a gift, the populous village of Dugauḍā. In his family was born Mahēśvara who from Kālaṁjara where he apparently resided, went to king Kīrttivarman at Pītādri or the Yellow Hill and obtained the village Pipalāhi as a reward for the services he rendered to this ruler. The inscription then seems to end abruptly. Both Jājūka and Mahēśvara are also mentioned in the Ajaigarh rock inscription of the time of Bhōjavarman from which we get the additional information that Jājūka was the Chief Minister (*Sarvādhikārin*) of Gaṇḍa. The Yellow Hill of these inscriptions is also mentioned in the fragmentary inscription of Vapullaka of the Chēdi year 812 of the time of Kalachuri Karṇa. I cannot identify the place but it is certain that it was an early stronghold of the Chandēlla rulers who at a later period established themselves at Kālaṁjar and Ajaigarh. Mention may here be made of two other inscriptions of one line each which are found engraved on the left and right side respectively of the pedestal of a group of sculptures carved on the rock to the left of the so-called Ashṭaśakti images near the Tarhaoni gate in the Ajaigarh Fort. Cunningham noticed them casually though he was unable to decipher them properly. The inscription to the left mentions that the images of Surabhī, Śiva, etc., were caused to be made by Dēvalladēvī, the daughter of the *Ṭhakkura* Dēvadhara and the wife of one Suhaḍadēva of the Vāstavya Kāyastha family. Suhaḍadēva was the son of the *Ṭhakkura* Ashau, the grandson of the *Ṭhakkura* Vāśē and the great grandson of the *Ṭhakkura* Vīdana who was in charge of the Jayapura-durga (Ajaigarh Fort) along with the *pratōlikā* (gatehouse). The date is given at the end as Saṁ. 1345. The inscription to the right records that Suhaḍadēva who has the same genealogy as in the other inscription just mentioned, caused to be made the images of Kēdāra and Pārvvatī, *vṛishabha*, Kṛishṇā, Ambikā, Tārā, Tripurā, Kāmākshyā, Durggā, Harasiddhi, Aindrī, Chāmuṇḍā, Kālikā and again Īśvara and Pārvvatī. These images are all found in the neighbourhood carved on the rock and most of them also bear separate labels. The date of this record is given as *Saṁvat 1344 Vaiśāsha(kha) vadi....*, the day of the fortnight and the name of the week-day being not clear. These two records are important as they enable us not only to

fix the date of the inscription of the time of Bhōjavarman which is found engraved at a little distance to the right, but also to ascertain the persons who were responsible for the carving of all the images found near the Tarhaoni gate. Suhaḍa of these inscriptions is undoubtedly the same as Subhaṭa of the inscription of the time of Bhōjavarman who, as we know from the latter, was the Superintendent of the Treasury of king Bhōjavarman. The present inscriptions also enable us to correct certain errors in the genealogy of Subhaṭa as given by Kielhorn while editing the inscription of the time of Bhōjavarman. The person mentioned in verse 23 of the last mentioned inscription was called Ashau and not Ruchira and he was the son of Vāśē and not of his brother Ānanda as held by Kielhorn. I have examined this inscription and the reading is clearly Ashau and not *asau* as Kielhorn read it. It is also certain that the year V.S. 1344 found in the inscription of Suhaḍa has to be accepted as the date of the inscription of the time of Bhōjavarman as well. Apparently, after the work started by Suhaḍa was finished in V.S. 1344, his wife added certain other images to this group a year later. With the help of these inscriptions we can now approximately fix the reigning period of Bhōjavarman. The latest date so far known of Vīravarmadēva is V.S. 1342 found in the Gorha *satī*-stone inscription and the earliest date of his successor Bhōjavarman is, as we have just noticed, V.S. 1344. We have two other dated inscriptions at Ajaigarh which bear the name of this ruler. One of these has the date V.S. 1345 and the other V.S. 1346 *Mārgga vati(di) 14 Budha*, the latter corresponding to Wednesday, the 24th November. A.D. 1288, if the year is taken as current. The earliest date of the next ruler Hammīradēva is V.S. 1346 *Bhādrapada vadi 12 Ravi Pushya-nakshatra* as found in his Charkhāri Plates which corresponds to 14th August, A.D. 1289, Sunday, taking the month as *Pūrṇimānta*. This would show that Bhōjavarman was not a usurper as Hiralal would take him to be but that he had only a short reign of 3 or 4 years. His relationship with Hammīravarman is not known from any records. Possibly he was a younger brother of Vīravarman and reigned only during the minority of Hammīravarman. That is probably the reason why his name has been omitted in the Charkhāri Plates of the latter ruler.

While at Ajaigarh, I paid a hasty visit to the Kālanjar Fort and copied a few inscriptions there. Of these I shall discuss only one which has not been noticed before. This inscription is found on a stone built into the wall in the sanctum of the Nīlakaṇṭha temple. It consists of 20 lines of writing and records the construction by one Vāsudēva of two *Maṇḍapas* dedicated to Nīlakaṇṭha. The date of the record is given in l. 16 as *Saṁvat 1147 Māgha-māsē su(śu)kla-pakshē sa[ptamyām*]* *[Rēvatī-nakshatrē]*. The name of the *tithi* is destroyed but the letter *sa* indicates that probably the seventh *tithi* was intended. The name of the day of the week is omitted but the mention of the *nakshatra* enables us to verify the date which, if the year is taken as current, would correspond to Thursday, 10th January, A.D. 1090, when the *nakshatra* was Rēvatī. In l.7 mention is made of king Kīrttivarman apparently to whose time the inscription has to be referred. The only date of Kīrttivarman so far known was V.S. 1154 found in the Deogarh inscription. The present record therefore takes his rule back by seven

years. If the reference found in the *Prabōdhachandrōdaya* and in certain Chandēlla inscriptions that Kīrttivarman defeated the Kalachuri king Karṇa (*circa* 1042-1070 A.D.) is correct—and there is no reason why we should doubt that in the struggle between the Kalachuris and the Chandēllas, Kīrttivarman might have been occasionally successful—it must be assumed that this Chandēl ruler enjoyed a long reign of more than thirty years.

On my way to Ajaigarh I stopped for a day at Panna. There in the old part of the town, I found an inscription engraved below a group of images carved on a block of stone now lying near the waterfall. The inscription indicates that this stone undoubtedly belonged originally to the fort at Ajaigarh. It records that the images were caused to be made by Suhaḍadēva, the son of Ashau and the grandson of Vāśē born in the Vāstavya Kāyastha family and belonging to Jayapura in (?) Kālaṁjara. On the left side is found in smaller characters also the name of his wife Dēvalladēvī. We are already familiar with all these names from the inscriptions at Ajaigarh Fort mentioned above. The date found in this record is *Saṁ. 1366 Śrāvaṇa sudi 10 Gurau* (=Thursday, 17th July, A.D. 1309) which shows that this group of images was installed by him nearly 22 years later than the one found at Ajaigarh Fort.

Of the inscriptions I copied at Chhatarpur I shall mention only two which are now lying in the compound of the Dewan's house. One of them inscribed on the pedestal of an image of Śāntinātha, is dated *Saṃvat 1203 Phā sudi 9 Sōmē* (=Monday, 10th February, A.D. 1147) in the reign of MADANAVARMADĒVA. The other is a late inscription bearing the date *Saṁvat 1772 Śākē 1637 Āshāḍha sudi 8 Sōmē* (=Monday, the 27th June, A.D. 1715) and mentions the Bundēl chief *Rājā* Chhatrasāla and his son Hiradasāhi (Hirde Shāh).

Among the inscriptions copied in the Allahabad Municipal Museum there are two early records. Both are dated the fifth day of the third fortnight of the Rainy Season in the 87th year of an uncertain era and belonging to the time of the *Mahārāja* BHADRAMAGHA. One of them records the gift of seats (*āsanapaṭṭās*) near a tank by the brothers the *Mādgalaputras* (Maudgalīputras) Śanikāya and Shaṇḍhaki (?) who were the sons of one Śapara. The other also records the gift of a seat by the same brothers in honour of the Bhagavat. Another inscription of the same ruler is already published which is dated a year later, *i.e.*, the year 88 and where the donors are apparently the same. There is also a record of one *Mahārāja* Śivamagha who certainly belonged to the same family but as the date in his inscription is lost, it is difficult to say whether he preceded or succeeded Bhadramagha. Very little is known about these rulers from any other source. Mr. Jayaswal is, I think, correct in identifying them with the Mēghas mentioned in the Purāṇas. Rai Bahadur D. R. Sahni, who has edited the two last mentioned inscriptions, opines that the date refers to the Gupta era. The characters in these inscriptions seem to be of the Gupta period but some of the letters show definitely earlier forms. The language is also not pure Sanskrit as one would expect in the inscriptions of the fifth century but has Prakrit forms like *putrehi*, *bhrātrehi*, etc. Moreover, it is doubtful if during this period the practice of dating in season, fortnight and day was still continued.

The only other inscription where such dating is found is the Bodh-Gayā inscription of the *Mahārāja* Trikamala of the year 61 but it has been doubted already by Professor Bhandarkar if the year has to be referred to the Gupta or the Kalachuri era. In the Purāṇas also the Mēgha rulers are mentioned before the Guptas. Taking all these points into consideration I think that this group of inscriptions should be placed a little earlier than the 5th century A.D. If the surmise is correct then Śivamagha of the above-mentioned inscription may be identical with the *Mahārāja* Gautamēputra Śivamē(ma ?)gha of the Bhita clay seal. There is in the same Museum a fragmentary inscription in Brāhmī engraved on a broken stone which reads:

1. *Rājñā*(*jñō*) *Gotiputasa Varuṇamitrasa putasa rājñā*(*jñō*) [*Kaṁ*]*haḍāputasa*
2. ....*putena*

As the second line ends with *putena* it is clear that the original inscription must have consisted of more than two lines, the name of the donor being mentioned in the third. Nothing is known of King VARUṆAMITRA from any other inscription or coin. But we may not be far wrong in ascribing this record to one of the Mitra rulers of Kōsala, though its provenance is not known. Of the later inscriptions in the Museum mention may be made of five. Of these two are engraved on a piece of stone each looking like a fragment of a door lintel. The characters of these records are of the 11th or 12th century A.D. One of them is dated Saṁvat 1133 and contains the name *Mahāsāmantādhipati Dushṭasā*[*dhya**?] Śrī-Mēnakiya (?) of Śrīdharabhōga. The name of *Bhaṭṭāraka* Lāhaḍa is also found towards the right end. The other mentions the *Mahārājāddhi*(*dhi*)*rāja Paramabhaṭā*(*ṭṭā*)*raka* Śrī-Rāṇa[dē]va, the lord of Khaṇaśāṭaka-vēsa(*-vishaya* ?). There is a date at the end which is not clear but has possibly to be read as Saṁ. 1[2]54. The next inscription is found on a red sandstone pillar now preserved in the compound of the Museum. It consists of 14 lines of writing of which the last five are badly worn off. It is of the time of JAYAṀTACHAṀDRADĒVA who is to be identified with the Gāhaḍavāla ruler Jayachchandra. The date is Saṁvat 1245 and the epithets borne by the king are the same as are found in his Meohar Stone inscription of the same year. The lower portion of the inscription being badly damaged, the purpose for which the inscription was incised cannot be ascertained. On the other side of the same pillar is found a Persian inscription which seems to have been engraved by erasing an earlier inscription only a few letters of which are still visible. The fourth inscription is found on a broken slab of stone which is stated to have been brought from Unchhera in the Nagod State, C. I. The beginning of the inscription is lost. Only 22 lines of it are now preserved. It is written partly in verse and partly in prose. The prose portion records the building and consecration of the temple of Vindhyēśvara (Śiva) by Śrī-Uddalladēvī, the chief queen (*paṭṭarājñī*) of Śrīman-Mahamandadēva who seems to have been a *Sāmanta* of Śrī-Āḍakkamalla who is described as 'the sun in expanding the lotus (in the shape) of the illustrious Gāhaḍavāla family'. The donatrix was the daughter of the *Mahāsāmanta-Rāja* Śrī Bharahadēva of the Rāshṭrakula (Rāshṭrakūṭa) family of Kanauj. The consecration was

performed on Thursday, the Damanaka-*chaturdaśī* of the Vikrama Saṁvat 1294. As this *tithi* falls in the bright half of Chaitra, the date would correspond to Thursday, the 12th March, A.D. 1237. The *praśasti* was composed by the *Paṇḍita* Sukhākara. There are five verses at the beginning of the extant portion of which the first seems to refer to some ruler whose name is lost. The second verse eulogises the *Sāmanta* Lakshmaṇa and mentions a *Rāṇaka* Dharmadēva who appears to be the maternal uncle of the former. What relationship this Lakshmaṇa had with Uddalladēvī or Mahamanda is not at all clear from what remains of the inscription. The next three verses describe the temple of Vindhyēśvara and its construction apparently at the instance of Uddalladēvī and also speak of the composer of the *praśasti*. The fifth is an inscription on a *satī*-stone which is stated to have come from the Rewa State. It is dated *Saṁvat 1417 samayē Jyēshṭha vadi 13 Vuddhē* (*Budhē*) in the reign of the *Mahārājādhirāja* Śrī-VALLĀLADĒVA. This ruler is undoubtedly identical with the Vāghēlā chief Vallāradēva, the son of Vālaṇadēva mentioned in the *Vīrabhānūdayakāvya*. It is thus the first dated inscription found to contain the name of this chief. Taking the month to be *Pūrṇimānta* the date regularly corresponds to Wednesday, the 13th May, A.D. 1360.

Of the inscriptions copied in the Nagpur Museum I shall notice only one. It is a single copper-plate of the time of the *Rāṇaka* Tēlugidēva of Vālauda. Hiralal, who has already noticed this inscription, read the date as Śaka 1181 and also remarked that the name of the ruler is susceptible of being read as Jaitugidēva. On examination I found that the name could on no account be read as Jaitugidēva and that the date has to be read as *Sākē Saṁvat 1151 varśē Vaisāga-vadi 14 Gurau* which would correspond to Thursday, the 4th May, A.D. 1228, if the year is taken as current. The record registers the sale of the village of Maṁjārī for twenty pieces of gold (? *bhaṁgāra*) to one Dēu. *Rāṇaka* Sigha-(Siṁha)dēva was the *pradhāna* at the time. The *Sūtradhāra* was Bharasiṁgha and the writer the *Paṁḍita* Tālhaka.

Earlier in the winter of this year, I visited Yerraguḍi and Hampi accompanied by the Assistant Superintendent for Epigraphy. At Yerraguḍi I examined the rock edicts of Aśōka which were discovered a few years ago and verified the transcripts which I had already prepared from impressions by referring to the original rocks. These edicts are expected to be published by me in the *Epigraphia Indica* shortly. At Hampi we copied five new inscriptions and the Superintendent, Southern Circle, also sent me estampages of four other inscriptions from the same place. All these were examined by Mr. N. L. Rao of this office. The earliest inscription from Hampi is a record in Kanarese verse and mentions three Jaina teachers: Gōllāchārya, his disciple Guṇachandra and his disciple Indranandi whose feet were worshipped by kings. Some verses are devoted to the praise of a female disciple whose name is lost. Though the date is not preserved, the record may be assigned on palaeographical grounds to the 11th century A.D. and thus would be the earliest found at Hampi, being about a century older than the Durgā temple epigraph of Śaka 1121 (=A.D. 1199).

The next earliest record belongs to the reign of the Vijayanagara king BUKKA I and is dated Śaka 1288 (=A.D. 1366). It registers the gift of a flower garden to the temple of Virūpāksha at Hampe by the *Mahāpradhāna* Basave-Dāṇḍanāyaka. Bukka is stated to have been ruling the kingdom from the city of Hastināvati (modern Ānegondi). It may be noted that up to the time of this inscription he had not assumed any titles indicative of paramountcy, such as *Mahārājādhirāja*. Another inscription on the pedestal of a broken Jaina image lying in the open-air Museum near the Lotus Mahal records that on Monday, the first *tithi* of the dark fortnight of Phālgunga in the year Bhāva, Immaḍi-Bukka-Mantrīśvara, the dear son of Baichaya-Daṇḍanātha, and the disciple of Dharmabhūsana-Bhaṭṭāraka constructed at Kandanavrōlu (modern Kurnool) a *chaitya* and installed in it the image of Kuṁthu-Tīrthaṁkara. We know that Irugapa, another son of Baicha, built a *chaitya* for the same Tīrthaṁkara at Vijayanagara in the Śaka year 1307 (=A.D. 1385), when his father was a minister of Harihara II. So the cyclic year Bhāva cited in the inscription under review may be Śaka 1316 in which year the given details would regularly correspond to A.D. 1395 March 8 Monday. In the Hanumān temple near the old gate are engraved two inscriptions one on each side of the entrance, above two sculptured human figures. One of them is very interesting as it states that the figure above which it is incised is that of king MALLIKĀRJUNA, son of Prahuḍa(Prauḍha)-Dēvēndrarāya. This is the first known sculptural representation, bearing a label, of any of the kings of the Saṅgama dynasty of Vijayanagara. The other states that the temple was constructed by Sēraṅgu (Śrīraṅga), the *chaurī*-bearer of the king Mallikārjuna. Evidently the sculpture underneath this inscription represents Śrīraṅga referred to in it. As the known dates of Mallikārjuna range from A.D. 1447 to 1465 the construction of this temple must be placed during this period.

Two Tamil inscriptions on hero-stones were copied by Mr. N. L. Rao during the year at the village of Mēlūr, at a distance of about 15 miles from Ootacamund. One of them is in characters of about the 17th or 18th century and is dated in the cyclic year Bahudhānya. It mentions two Gāvuṇḍas who probably killed a tiger which is represented on the stone as being pierced with a dagger. The other, which is also engraved on a stone bearing a sculpture similar to the above, is very much damaged but is interesting as the alphabet used in it may be assigned to about the 13th century. Nothing can be said definitely about the person who set up this hero-stone but as the script and the language are Tamil it could not have belonged to either the Todas or the Baḍagas, the two well-known tribes on these hills. Even if the Baḍagas had already settled in these parts one would expect them to use a dialect of Kanarese as they do even at the present day.

Information about a few new inscriptions was received in this office through the Director General of Archæology in India and also the Archæological Officers in some of the Indian States. Of these two inscriptions from Idar State, tentative transcripts of which were received by me through the Director General of Archæology, deserve mention. The Director of Public Instruction and Archæology

of the State later on sent me impressions of these records which enabled me to verify the reading of the text. One of them in four lines is found in the Vaidyanātha Temple at Vadali. It records the building of a *maṇḍapa* in the Vaidyanātha Temple by one Sāhaṇapāla who is described as a *Pratī(hārin)* in the third line. He was the son of Haripāla of the Vāraḍa family and formerly the doorkeeper (*dvāstha*) of DHĀRĀVARSHA, the Paramāra ruler of Abu and the grandson of Narapāla. The date of the record is *Saṁvat 1264 varshē Chaitra śudi 13 Gurau* corresponding to Thursday, the 19th April, A.D. 1207, if the month is taken as *Pūrṇimānta*. It appears from the inscription that Sāhaṇapāla succeeded his father as the *Pratīhārin* of Dhārāvarsha who, we know, had a long rule of over 56 years. The record was composed by the *Paṇḍita* Āsadhara and seems to have been engraved by one Jālāka. The second is a fairly long record in twelve lines which is at present preserved in the Rāmjī Temple at Bhavanāth Mahādeo in the same State. It belongs to the time of Karṇadāva of the Chaulukya-Vāghēlā family of whom the following genealogy is given: In the Chaulukya family Ānāka who ruled in Surāshṭra; his son Lavaṇaprasāda; his son Vīra(dhavala) who fought with Mushāra (? Muhammad Mu'izzu-d-dīn, Sulṭān of Delhi); his son Pratāpamalla; his younger brother Viśvala who defeated the lord of Dhārā in battle, 'broke' the city of Dhārā and placing Arjuna, the only son of his elder brother, in charge of the kingdom went to heaven; his son Śrī-Rāma; his younger brother Śārṅgadēva who defeated one Gōga whose identity is not certain; Rāma's son KARṆA. This inscription is important as it throws fresh light on the Vāghēlā genealogy and also enables us to correct certain errors which have hitherto passed unnoticed. It is stated in the Bombay Gazetteer that Pratāpamalla was the younger brother of Vīsala while our inscription clearly states that Viśvala was the younger brother (*anujanmā*) of Pratāpamalla. This relationship is also known from the Cintra *praśasti* of the reign of Śārṅgadēva (*Epigraphia Indica*, Vol. I, pp. 280ff.). While editing this inscription Bühler mistook the compound *Pratāpamall-āvarajaḥ*, an epithet given to Viśvamalla (Vīsala) in verse 8, as Bahuvrīhi and thus thought that Pratāpamalla was the younger brother of Vīsala. In fact the compound in this case is only Tatpurusha (*Pratapamallasy=āvarajaḥ*) showing that Vīsala was the younger brother of Pratāpamalla. Neither the Cintra *praśasti* nor the present inscription, however, mentions Pratāpa as a ruling king. On the basis of this, I doubt if the story that the Minister Vastupāla secured the succession of Pratāpa by force can be regarded as authentic. Probably Pratāpa never reigned having died in the lifetime of his father. Another information that we get from the present record is that Arjuna had two sons the elder of whom was Rāma and the younger Śārṅgadēva. The Cintra *praśasti* does not make any mention of Rāma. Probably he also died young and had no opportunity of reigning. The date of the inscription is given at the end as: *Srī-nripa-Vikrama-kāl-ātīta-Saṁvat 1354 varshē Śōbhana-nāma-saṁvatsarē dakshiṇāyana-gatē sūryē Kārttika-sudi Ravau* and regularly corresponds to Sunday, the 27th October. A.D. 1297. The object of the *praśasti* is to record the construction of a temple of the sun at (?) Bhṛigukuṇḍa and also of a temple of Muñjālasvāmin called after his father's name, by one Vaijalladēva.

details of whose genealogy are given in verses 16-24. The name of the composer of the eulogy is not clear while that of the engraver is Nāyaka.

Mention may here be made also of the photographs of five inscriptions which were received from the authorities at Azerbaijan through the Director General of Archæology in India. They are all from the so-called Fire Temple at Baku and four of them are found engraved on stone slabs fixed either above or near the doorway of a series of cells. The script of two is Gurmukhī and of the remaining three Nāgarī. The language of all the five is Hindī mixed with Sanskrit. All the inscriptions are of a very late date but they have an interest of their own, having been found at a place so far from India. The two Gurmukhī inscriptions are undated. One of them starts with the opening formula of the *Japjī-sāhib*, the daily prayer of the Sikhs and records a certain construction apparently of the cell near which it is found, in the holy place called Jvālājī, by one Karatārāma, the disciple of Mēlārāma who was the disciple of *bābā* Tagadāsa of Baṁgā, a well-known town in the Jullundur district in the Punjab. The other quotes the two opening verses of the same prayer and records the construction of the cell by a person whose name can only be partly read as........rasāha, the disciple of *bābā* Baṁkēsāha who was the disciple of *bābā* Jādusāha. Of the three inscriptions in Nāgarī the earliest is dated Saṁvat 1770 and seems to record that the work of construction of the cell lasted from the 5th day of the dark half to the 8th day of the bright half of Vaiśākha of that year. The next is dated Śaka 1840, the second day of Chaitra and records the construction of a cave (*i.e.*, a cell) on the Himāchala by an ascetic Vādānagiri (?) in honour of Jvālājī. The term Śaka here has apparently been used in the general sense of 'year' and the date has therefore to be referred to the Vikrama year as is the case in all the other dated records from this site. The fifth inscription is said to be a double oblong tablet fixed high over the archway on the eastward front of a square structure in the middle. It is dated the 9th day of the dark half of Pausha, Saṁvat 1873 and records that the structure was constructed in honour of Jvālājī by Budhadēva of Majagama (*grāma* ?) then residing at Kurukshētra. The name of one Lālā Vīrasukha is also mentioned towards the end. A. V. Williams Jackson in his book of travels entitled 'From Constantinople to the Home of Omar Khayyam' devotes a chapter to the Fire Temple at Baku and notices altogether eighteen inscriptions. It is seen from his account that all the inscriptions connected with the cells in the precincts belong to the 18th century while those in the square tower are of the 19th century. It is therefore clear that the cells were built by different donors in the 18th century and that the square tower is a later structure being built in the 19th century. All the inscriptions found there also show that the site was decidedly a place of Hindu worship and there is no foundation for the theory that it was originally a Fire Temple belonging to the Parsis. No reference to this *tīrtha* is found in any of the *Māhātmyas*. The earliest reference by a European traveller is found in the accounts of the travel of Joan Hanway who visited Baku in 1747. We also learn from the same source that there was a large Indian population at Baku early in the 18th century. It is therefore likely that towards the end of the 17th or the commencement of the 18th century,

the Hindu community at Baku, most of whose members hailed from North India and were thus well informed about the famous Jvālāmukhī-*tīrtha* near Kangra, found here the natural flame coming out of the earth and made it into an object of worship. The cells in the precincts donated by visitors apparently served as rest houses for pilgrims and holy men visiting this *tīrtha* when the fame of the place spread as a second Jvālāmukhī.

The Superintendent of Archæology, Bhopal, sent me an estampage of an inscription in the Raisen Fort. The record is dated Monday, the 8th day of the dark half of Māgha, Saṁvat 1582 (=Monday, the 5th February, A.D. 1526). The purpose for which it was set up is not clear but it mentions the names of the *Mahārāja* Sālāhadadu and Bhumapatisāha who are evidently identical with Salahadī, the chief of Raisen, and his son Bhupat Shāh. When I visited the fort later in the year, I copied three other inscriptions. The earliest of them is found built into the outer wall of an old temple. It is dated Saṁvat 154[7], Śaka 1413, the 13th day of the bright half of Māgha, Pushya *nakshatra*, Sunday (=23rd January, A.D. 1491). The name of the ruler is partly lost but we know that at this period the Raisen Fort was under Ghiyās-ud-dīn Khalji of Mālwā. Another inscription is found on a slab of stone in the Nizamat Gate which is dated Saturday, the 9th day of the bright half of Bhādra, Saṁvat 1599 (=19th August, A.D. 1542) and mentions the names of the *Mahārājādhirāja* Pratāpasāhidēva, and the *Mahārājakumāras* Puraṇamalladēva and Chaṁdrabhāṇadēva. The third inscription is found below the one just mentioned and seems to contain the same date and also the name of Pratāpasāhi, identical with Partāb Shāh who held the Raisen Fort as the deputy of Puran Mal the infant son of Bhopat Shāh.

Impressions of three Telugu inscriptions from Memorial tablets were received from the Director of Archæology, Hyderābād. Two of these seem to mention a chief named Oḍḍarāja or Oḍḍamarāja and the third which is mutilated, describes the military achievement of a hero and mentions the places Oṟeūru, Bhōgavrōlu and Kandūru. Of these Oṟeūru is possibly identical with the ancient capital of the Chōḷas.

With regard to the collection in SOUTH INDIAN EPIGRAPHY, the Superintendent for Epigraphy reports that during the year under review 193 villages in the Madras Presidency were visited and 338 inscriptions copied. In the Bombay Karnatak 75 villages were surveyed where impressions of 132 inscriptions were taken. Fourteen copper-plate grants were also examined and 97 photographs of historical and sculptural interest were prepared. The following is a summary of the interesting unpublished inscriptions as supplied by this officer.

"Of the COPPER-PLATE CHARTERS, a grant dated in the 358th year of the Gaṅga era belongs to King ANANTAVARMAN, son of Dēvēndravarman and registers gift of a village to a certain Viṭhu-Bhaṭa (Vishṇu-Bhaṭṭa), son of Harichandra of the Kuṇḍilya(Kauṇḍinya)-*gōtra*. As there was no king named Anantavarman ruling at the time of this record which would correspond to A.D. 852, we may assume the king to be a younger brother of Satyavarman of the Chicacole plates. A set of five copper-plates now deposited in the

Madras Museum was examined during the year and was found to contain three documents of different periods. The first of these has already been noticed by Kielhorn though very briefly. It is attributable palæographically to about the 9th century A.D. and is stated to have been issued in the reign of a Chōḷa Adhirāja ŚRĪKAṆṬHA-CHŌḶA-MAHĀRĀJA whose genealogy it traces from Brahmā, Marīchi, Kāśyapa, etc., until it comes to the quasi-historical king Karikāla who was famous as the builder of the embankments to the river Kāvērī. Then a number of kings *viz.*, Sundarananda, Navarāma, Eṟeyamma, Vijayakāma, Vīrārjuna, Agraṇipiḍugu, Kōkili, Mahēndravarman. Eḷaṁjōḷa, Nṛipakāma and Divākara are enumerated, before it comes to Śrīkaṇṭha-Chōḷa. the donor. As Sundarananda figures as a brother of Dhanañjayavarman, an ancestor of Puṇyakumāra in his Mālēpāḍu grant (*Epigraphia Indica*, Vol. XI, p. 337), it is possible that Śrīkaṇṭha of the present record belonged to the early line of the Telugu-Chōḷa kings, who held sway over part of the modern Cuddapah and adjoining districts. This grant registers the gift of the village Mandara to a certain Bālaśakti-Guru for providing worship to god Prētīśvara. The second record engraved in continuation of the foregoing is in Telugu characters of the 10th century A.D. and registers a gift of the income from the villages of Mandara, Inumbrōlu and Pāka by BALLIYACHŌLA-MAHĀRĀJA to god [Śvé]tēśvara-Bhaṭāra, while the third refers to a grant by VAIDUMBA-MAHĀRĀJA, of the village Kāṭicheṟuvu situated in Kaḍapa-12, to god Nṛitta [or Tri ?]-Lōkēśvara on the occasion of the Dakshiṇāyana-Saṅkrānti in the Śaka year [89]3. A copper-plate grant from Dhārwār purporting to belong to Vīra-Noṇamba-Chakravarti is stated to have been issued by him from his capital Kalyāṇapurī in Śaka 327. It is engraved in a crude variety of Nāgarī script which can at best be attributed to the 11th or 12th century A.D. This Vīra-Noṇamba bears a number of Western Chāḷukya *birudas* and was presumably a Chāḷukya feudatory. We know of one Vīra-Noḷamba, who was the son of Vīra-Sōmēśvara and who was ruling about A.D. 1046 over some outlying provinces of the Chālukyan empire. If the Vīra-Noḷamba of our record is identical with this Chālukyan subordinate, then the cyclic year Parābhava quoted in the record, must correspond to Śaka 928 and not Śaka 327. The general appearance of the writing and the incorrect details of date mentioned therein lead one to question its genuineness. A Telugu grant which refers itself to the reign of ANANTAVARMAN-CHŌḌAGAṄGA is dated in Śaka 1040, and is similar in wording to his Vizagapatam plates issued in the same year (*Indian Antiquary*, Vol. XVIII, p. 166). It records the gift of a village to a certain Ulagiyagoṇḍaperumāḷ, presumably a Tamilian subordinate stated to be a close relation of the king. A photograph of a copper-plate received from the Batavia Museum is dated in A.D. 1676, and registers an agreement made by the Tanjore Marāṭha king ĒKŌJI-MAHĀRĀJA, who styles himself the agent and general of the Bijāpūr Sulṭān, entering into an alliance of mutual friendship with the Hon'ble Dutch East India Company and confirming certain trading and colonising rights that had been granted to them in the time of Chokkanātha-Nāyaka of Madura in A.D. 1664 and Vijayarāghava-Nāyaka in A.D. 1669. The Company was represented by two Dutch officers who are named Siñau Bikruvōvar and Siñau Thomasu Vaṇḍero acting under the orders

of Siñau Amarāla-Mahārāja (Admiral) Rikkoloppu von Guñju (Rijcklof van Goens), the general of Malaṅgara and the Governor of the Dutch possessions in Ceylon, Coromandel, Sālakkarai and Madurai coasts.

"The earliest of the STONE RECORDS copied during the year, is a short label inscription of two lines engraved in archaic Vaṭṭeḻuttu characters of about the 7th century A.D. on a pilaster of the rock-cut cave-temple at Piḷḷaiyārpaṭṭi in the Ramnad district, and giving the name, Ikkāṭṭūruk-Koṟṟūru [Aiñ]jaṉ, probably of the individual who had the cave-temple excavated. This epigraph combined with the early nature of the sculptures carved in the cave would help us to assign the temple to about the aforesaid period. The Piḷḷaiyārpaṭṭi excavation may be considered to be the earliest example of this type. A few early records copied from the Cuddapah district are attributable to the 7th and 8th centuries A.D. One from Indukūr and another from Uruṭūr in the Kamalapuram taluk register gifts of the *pannasa*-tax made by the chief ERIGAL-DUGARĀJA during the reign of CHŌḶA-MAHĀRĀJA. The latter was evidently one of the early Telugu-Chōḷa kings reigning in this tract. Next in point of time comes an epigraph of the Śaka year 807 (A.D. 885) found at Poṭṭipāḍu in the Jammalamadugu taluk, which records a gift made by DHAVALEYARASA who has the characteristic *birudas* of the Bāṇa chiefs, namely *Sakala-jagat-tray-ābhivandita*, etc. This Bāṇa chief comes to notice for the first time now. It is of interest to note that the *Tulāpurusha* and the *Hiraṇyagarbha* gifts are herein mentioned among the merits that would accrue to the protectors of the charity. An epigraph on a hero-stone copied at Vīrachōḷapuram in the Tirukkoilur taluk of the South Arcot Tachchai (Tañjai) district, which is dated in the 3rd year of KOṆḌA PARAKĒSARIVARMAN is engraved in Tamil characters of a peculiar box-headed variety, and is to be attributed to Vijayālaya, the founder of the Tanjore line of Chōḷas. It records the death in a cattle-raid of a warrior named Aṉiyaṉ of Attiyūr in Kaṟpūṇḍi-nāḍu, while defending the cattle against an unspecified invader. An effigy of this warrior armed with a bow and an arrow is sculptured on this slab. An epigraph from Pālagiri in the Kamalapuram taluk, Cuddapah district, is dated in Śaka 978 (A.D. 1057) in the time of the Vaidumba chief BHĪMA-MAHĀRĀJA who is mentioned as the son of a Śrī-Maduka-Mahārāja. A grant of land had been made to the temple of Samarthēśvara by king Chalakkenallāta Akālavarsha Kannaradēva (*i.e.*, Kṛishṇa III), while Vaidumba-Mahārāja was ruling in this region. The slab bearing this older record having broken, it is stated, a renewal of the gift was made during the regime of Bhīmarāja who also renovated the temple. Incidentally we learn from this record that the Vaidumbas claimed to have belonged to the Sōma-kula, *i.e.*, Lunar race. From the inscriptions of SAḌAIYA-MĀṞAṈ (Rājasiṁha III) copied from Ukkiraṅkōṭṭai, a village 18 miles to the north of Tinnevelly, it is learnt that the place was called Karavandapura and was situated in Kaḷakkuḍi-nāḍu. As there is a village called Kaḷakkuḍi in that region, the suggestion made in the *Epigraphia Indica*, Vol. VIII, that Karavandapura *alias* Kaḷakkuḍi may be identified with Kaḷakkāḍ in the south, in the Nagguneri taluk, requires modification, and the place has to be identified with Ukkiraṅkoṭṭai. Karavandapura is stated to have had a fort

surrounding it in those times. In the east and west *gōpuras* of the Naṭarāja Temple at Chidambaram small niches containing mutilated images of deities such as Indra, Agni, etc., were found with their names engraved below them on their pedestals in characters of about the 13th century A.D. This practice of engraving labels below images was not so common in South Indian temples as in those of the Hoysaḷa period in Mysore, where the names not only of the deities but also of the sculptors thereof were oftentimes given. Two records from Tiruppattūr (Rāmnād district) of the Pāṇḍya kings ŚRĪVALLABHA and KULAŚĒKHARA throw some light on the social conditions in the 13th century. In one of them it is stated that Patagātrayan, son of Kāraiyūrkiḷār of Tiruppattūr, and his brothers and nephews were implicated in the murder of some Brāhmans, and that, as a punishment, their lands were confiscated and sold to the temple by the *Mūla-parishad* of the village.

"Among the new epigraphs copied in the BOMBAY-KARNATAK during the year, comes a record from Hirebidri (Rānibennur taluk) in characters of the 7th century A.D. It belongs to the reign of king SATYĀŚRAYA, who is probably identical with the Western Chāḷukya king Pulakēśin II. Of the Rāshṭrakūṭa kings represented in this year's collection DHŌRAPPARASA (Dhruva I) is the earliest, and his subordinate Māraskika-Arasa is mentioned in an inscription from Siḍenūr as governing the Banavāsi-nāḍu. A record of ŚUBHATUṄGA from Hirebidri dated in Śaka 800 is of interest as furnishing the earliest date known so far for this king. In and near Kallkēri in the Hangal taluk of the Dharwar district are found a number of hero-stones recording the death of heroes who fell fighting in cattle-raids. They all belong to the last days of the Western Chāḷukyas of Kalyāṇi or to the period of the rise of the Yādava, Kaḷachurya and Hoysaḷa dynasties in Karṇāṭaka. One of them records that in a raid at Kalukeṟe by Tailahadēva of Dēvaṅgēri *Chaladaṅkarāma* Mādiseṭṭi met his death in the 3rd year of VĪRA-SŌMĒŚVARA IV. Another states that Saṅka, a servant of the same Mādiseṭṭi, fell during the storming of the fort of Kundugoḷa (the modern Kundgol). Mādiseṭṭi figures as a subordinate of Vīra-Sōmēśvara IV in other recrods but in the present inscription he is described as ruling from his capital at Kalukeṟe. It is not certain whether the name of his overlord was omitted in the present records or taking advantage of the weakened state of the Chāḷukya rulers of Kalyāṇi, petty chieftains who were originally their subordinates gradually asumed independence."

PUBLICATIONS.

The Epigraphia Indica.

Five parts of the *Epigraphia Indica*, *viz.*, part vii of Vol. XXI and parts ii to v of Volume XXII, were passed for final printing and issue during the year. Of these, part vii of Volume XXI consists of a portion of the *List of Inscriptions of Nothern India* and some pages of Index to the List which is continued in part v of the next volume. Twenty-three complete articles have appeared in the four parts of Vol. XXII. Some of the inscriptions published in these parts have

already been noticed in last year's report. Of the others mention may be made of two copper-plate grants of the Gujarāt branch of the Rāshṭrakūṭas, one belonging to the time of KARKKA SUVARNAVARSHA and the other of DHRUVA II, which have been edited in part ii by Drs. Bhattacharyya and Altekar respectively. The former, which is dated Śaka 746, is the latest known record of Karkkarāja. It registers the grant of the village Brāhmaṇapallikā in the Māhishaka-*vishaya*, which comprised forty-two villages, to the Brāhman Nāgakumāra, son of Bhaṭṭa Dāmōdara, and belonging to the Kauṇḍinya-*gōtra* and the Vājasanēya-*śākhā* (of the White Yajurvēda). The grant of Dhruva II is dated Śaka 806 which extends his reign by seven years, the latest date known for him hitherto being Śaka 799. This is also interesting as it records the grant of a village to the Buddhist *vihāra* of Kāmpilya. The village granted was Dhaḍa-yāsaha and the gift was made while the king was camping at Śrī-Khēṇa(ṭa)ka (modern Kaira). In his introduction to the article on this grant Prof. Altekar discusses the relationship between Dhruva II and his successor Kṛishṇa II and arrives at the conclusion that Kṛishṇa was the eldest son of Dhruva II. He argues that as Kakkarāja, a hitherto unknown son of Dhruva, appears as the *Dūtaka* and is not designated as a *Yuvarāja*, he must have had an elder brother who was probably the same as Kṛishṇa Akālavarsha. But it may be pointed out that nowhere is it stated that Dhruva II had two sons and it is not impossible that Karka was not appointed *Yuvarāja* by the time the grant was issued. Prof. Bhandarkar has edited a grant of ŚĪLA-MAHĀDĒVĪ, the queen of the Rāshṭra-kūṭa king DHRUVA. This queen who was not known hitherto, is described as the princess of the illustrious Viṭṭarasa whom the Professor has identified with the Eastern Chālukya king Vishṇuvardhana IV (A.D. 764-799). The inscription registers the grant of the village Kōlāpadra situated in the district of Nandī-puradvārī to two Brāhmans Mārachcha and Durgāditya. The date of the record is Śaka 708, *amāvāsyā* of Aśvayuja (Āśvina), solar eclipse, which regularly corresponds to Wednesday, 27th September, A.D. 786. A noteworthy feature of this document is that the queen grants the village and issues the charter without any formal sanction or approval by the king. This would show, according to the editor, that both husband and wife had in ancient times, an equal share even in the administration of a kingdom. After citing the instances of Rāma and Yudhishṭhira from the great Epics, who were crowned sovereigns along with their consorts, Prof. Bhandarkar gives three instances from inscriptions in support of his statement. The Kadamba queen Lachchaladēvī (Śaka 977) was ruling the kingdom along with her husband. Vijaya-Mahādevī, the wife of the Early Chālukya prince Chandrāditya, issued two copper-plate grants independently of her husband. Gautamīputra-Śātakarṇi of the Sātavāhana dynasty, in one of his Nasik inscriptions, issues an order conjointly with his wife, to an officer at Gōvardhana. This part also contains an article by the late Mr. R. D. Banerji on the Bayānā inscription of CHITRALĒKHĀ. It informs us that the territories of the queen who was a princess of the Śūrasēna family and the wife of a certain Maṅgalarāja, probably of the Kachchhapaghāta family, were included in the empire of the *Mahārājādhirāja* ŚRĪ-MAHĪPĀLA. As no sovereign of

the name of Mahīpāla is known to have been reigning at the time of the record which is dated Vikrama year 1012 (=A.D. 955), Banerji is of opinion that he might be a second prince of this name belonging to the Gurjjara-Pratīhāra dynasty and places him between Dēvapāladēva of the Śiyaḍōṇi record (V. S. 1005) and Vijayapāladēva mentioned in the Rajaur inscription of Mathanadēva. The plates of MAHĀ-BHAVAGUPTARĀJADĒVA of the Lunar family edited by Pandit L. P. Pandeya are important as the seal bears the device of a bull instead of the figure of *Gaja-Lakshmī* usually found on the seal of the Sōmavaṁśī kings. As no personal name such as Janamējaya and Bhīmaratha borne by the two known Mahābhavaguptas of the family is found in the record, it is not certain whether the king to whose reign the record under review refers itself is to be identified with either of the two just mentioned or he is a different ruler of the family. Mr. K. V. S. Aiyer's article on the Drākshārāma inscription of KULŌTTUṄGA I describes the victory gained in Kaliṅga by one of the king's chief officers named Vaṇḍuvarāja, who is also called Pallavavarāja and Tiruvaraṅga. The account of the Kaliṅga war as recorded in this inscription agrees very well with that of the Tamil work *Kaliṅgattupparaṇi* composed in the reign of Kulōttuṅga I. Mr. Aiyer has identified Dēvēndravarman, who is stated in the inscription to have been destroyed in battle by Vaṇḍuvarāja, with Dēvēndravarman Rājarāja I, the father of Anantavarman Chōḍagaṅga and consequently he places the date of the Kaliṅga war mentioned in the inscription before A.D. 1078, the last year of Dēvēndravarman's reign. This record which is dated in the 33rd year of Kulōttuṅga's reign (A.D. 1103), mentions various gifts made by Vaṇḍuvarāja. The same scholar has edited in part iv the Uttaramallūr inscription of PARĀNTAKA I. This epigraph which is dated in the 15th year of the king (A.D. 922) lays down the rules for selecting persons for testing the correctness (*i.e.*, fineness) of gold current in the village. Among them were the representatives of the Māḍavīdi, probably the locality where the privileged and wealthy classes lived, of the army and of the Śaṅkarappāḍi (probably the quarter of merchants). It should be noted that these persons chosen for testing gold were different from the Gold Committee (*Poṉ-Vāriyam*) mentioned in other inscriptions and were not only subordinate to the Tank Committee unlike the members of the *Poṉ-Vāriyam* but also received fixed emoluments for discharging their duties. In his article on the Tirōḍi plates of Pravarasēna II already noticed in the last year's report, Prof. V. V. Mirashi has shown on the basis of the places mentioned in the inscription that the territory of the Vākāṭakas extended to the east as far as South Kōsala, including the modern districts of Bālāghāṭ, Bhandāra and Chānda which must have formed part of ancient Vidarbha.

The South-Indian Inscriptions.

Of the volumes of the SOUTH INDIAN INSCRIPTIONS being edited by the Superintendent for Epigraphy, print order was given for Volume VIII of the series. Of the volume on inscriptions from Bombay-Karnatak, 104 pages of the manuscript, 61 pages of the first and 54 pages of the second proof were sent to the press. Satisfactory progress was also made in preparing materials for the press

of the next volume of Tamil inscriptions. Nineteen villages were visited in this connection and the readings of 100 inscriptions which were either damaged or in an incomplete state were revised *in situ.*

For the volume on Kanarese Inscriptions of the Madras Presidency entrusted to Dr. Shamasastri, the last instalment of the manuscript of the text was sent to the press. It has now been decided to issue this volume in three parts. The first part will contain inscriptions up to the end of the Yādava period for which the stitched proof is expected to be ordered shortly. The second part will consist of the text of the remaining inscriptions and the third of the Introduction and the Index. No further material for the volume on Telugu inscriptions was sent to the press as the proof of the manuscript sent last year has not yet been received.

The *Annual Report on South Indian Epigraphy* for 1931-32 was also issued during the year.

MISCELLANEOUS EPIGRAPHICAL WORK DONE IN CIRCLES AND MUSEUMS.

No epigraphical work is reported from the EASTERN, NORTHERN and FRONTIER CIRCLES. The Superintendent, WESTERN CIRCLE, copied 57 inscriptions of which 54 are known inscriptions in Brāhmī characters which are to be included in the *Corpus Inscriptionum Indicarum,* Vol. II, Pt. ii, and the remaining three are in Persian.

Central Circle.

The Superintendent, CENTRAL CIRCLE, reports that seven small inscriptions were copied during the year, five from Nālandā and two from Rājgīr. Of the Nālandā inscriptions three contain only the Buddhist creed, one inscribed on the back of a stone image of Buddha states that the statue was the gift of the *Mahāyāna* monk Rāhulasiṁha and the other is a broken clay sealing bearing an incomplete legend which may be read as *Sarvva-śīla-varga-ji*[*ta-*]. The two inscriptions from Rājgīr are also only fragmentary votive records inscribed on the pedestal of two Jaina images. In one of these the name of the donor may be read as *ārya* Jiṇamati.

The same officer has also sent me impressions of sixteen votive records inscribed either on the pedestals or on the backs of bronze images found at Nālandā during the years 1932 to 1934. They could not be noticed before as the images were not cleaned. They invariably contain the Buddhist creed and only in a few cases the name of the donor or donatrix of the statue as well, such as Prabhākara, Prabhākaraśila, Śṛi(Śrī)kūka, the Buddhist monk Vimalākarajñāna, Kamalākarabhānu, Asraka the wife of Sithāraka Dākhika (Dākshika of Sithāraka ?) and the wife of Himēka of -mvāthika, whose name is lost except the first syllable Ra.

An impression of a fragmentary Telugu inscription was also received from the Central Circle earlier in the year which was copied at Hatidara in Bastar State, C. P. The record mentions one Jagadēkabhūshaṇa *Mahārāja*, the lord of Bhōgavatīpura and belonging to the Nāga family, who is identical with the ruler mentioned in the inscription from Bārsur and Poṭināra in the same State,

both dated Śaka 983. The date of the present record is, however, Śaka 996 which extends his rule by about thirteen years.

Burma Circle.

The Superintendent of the BURMA CIRCLE reports the discovery of five new lithic inscriptions in Burma during the year. "One of them," says he, "was found lying near the Treasury vault of the office of the Deputy Commissioner, Yamethin, and was brought to the notice of the Superintendent by a Buddhist monk residing in the Thein-u Monastery of the Letha *Taik* at Yamethin. Its original site was near a *Sīmā* (ordination hall) about three furlongs to the west of Kyauksa village in Zagyantoung village-tract, Pyawbwè Township, Yamethin district, and it is said to have been brought over from there some years ago by the then Deputy Commissioner of the Yamethin district, and placed in his office compound at Yamethin. The stone slab being exposed to the weather, the inscription, which was incised on one face only in Burmese, is very much worn, most of the text has flaked off, and only a few still legible words remain. From what can be made out of these, the inscription records the dedication of cattle, slaves and land to some monument not now extant and the aspiration of the dedicator to Buddhahood. The date has also disappeared, but, on palæographical grounds, the record may be placed in the 12th-13th century A.D. This inscribed slab has now been deposited in a safe place in the premises of the residence of the Deputy Commissioner, Yamethin, at the instance of the Superintendent.

"The other four inscribed stone slabs were found at a ruined pagoda in Myogale, a hamlet of Atet Sidi East village, about three miles to the south of Pegu Town. The circumstances which led to their discovery are as follows:—Early in May 1935, lightning struck a Kôkko tree (Albizzia Lebbek) and a large fissure in the wall of a pagoda close by resulted. Their curiosity being aroused, some of the villagers did some excavation and came upon the slabs together with a few images of the Buddha in bronze and silver. The slabs were inscribed on one face only. The inscriptions on two of them are in Portuguese, that on another is bilingual—Latin and Armenian—and that on the remaining one is in three different languages: Armenian, Portuguese and Burmese. The two inscriptions in Portuguese are epitaphs. One commemorates the death of William Stringfellow, legitimate son of Henry Stringfellow and of Anna Simoeñs, at the age of 8 years, in the month of November of the year 1742, and the other the death of Izabel Sonbrinha de Abreu, legitimate daughter of Francisco Sonbrinho de Abreu. The last line of the latter epitaph which most probably contained the date has been defaced. The bilingual inscription is an epigraph commemorating in two different languages—Latin and Armenian—the construction by Nicholas de Agualar and Margarite, his spouse, of a building in the Holy year of the Lord 1750 for the propagation of the Faith of the Regular Clerics of St. Paul. The last slab bearing a trilingual inscription is the tombstone of Peter (called 'Petrose' in Armenian and 'Pedro' in Portuguese) who died in the year 1749. The Armenian text tells us that he had been a heathen converted

to Christianity and died in the year 1749. The second part is in Portuguese and informs us that he was a native of the kingdom of Ava and died on the 2nd May 1749. The last portion of the inscription which is in Burmese says that Maung Nyun, brother-in-law of Captain Nicholas, passed away in the 36th year of his age on the 4th day of the waxing moon of *Tawthalin* 1111 (=15th August 1749). According to the date given in the Burmese inscription, Maung Nyun died 3 months and 13 days after the death of Peter. The problem is whether 'Maung Nyun' was the original native name of Peter before he became a Christian and the date in the Burmese text is an error, which is improbable, or whether another person is referred to. The last is most probably the case, his epitaph having been, for reasons now long forgotten, incised in the blank space left near the bottom of Peter's tombstone.

"Besides the above stone inscriptions there were also found three short epigraphs. One was incised on the back of the pedestal of an image of the Buddha in bronze and the others on the obverse face of two terra-cotta votive tablets. As has been noticed elsewhere in this report, the legend on the Buddha image is in Burmese, in characters belonging to the 16th century A.D. and gives the name of the Buddha whom the image represents as well as the name of its maker; of the other two, found inscribed on terra-cotta votive tablets, one is in Pyu and the other in Sanskrit; similar tablets have been found in previous years, and no explanation is necessary."

The Superintendent also reports that the work on Môn inscriptions entrusted to Dr. C. O. Blagden of London issued from the press during the year. It contains six mediæval Môn inscriptions (Nos. XIII-XVIII) and with their publication Dr. Blagden's contract with Government for editing the Môn inscriptions found in Burma comes to an end. U Mya the late Superintendent of the Burma Circle continued, while in office, to work on the earlier Pāli inscriptions which have so far been discovered at Hmawza (Old Prome) and in the neighbouring localities and which he proposed to publish in a subsequent volume of the *Epigraphia Birmanica*, but the work could not be completed owing to his ill-health and has been held in abeyance since his subsequent retirement.

Indian Museum, Calcutta.

The Superintendent, Archæological Section, Indian Museum, reports that ten sets of copper-plates were acquired for the Museum during the year. One of these, the Navagram grant of the *Mahārāja* Hastin has already been published in the *Epigraphia Indica*, Volume XXI, p. 126. The other nine inscriptions will also be published in the *Epigraphia Indica* in due course. Therefore, only a short note on them is appended below for information. The first eight (A to H) of these nine along with two other sets are said to have been found deposited in an earthen pot which was dug up by a cultivator while ploughing a field in a village of the Baḍa-Khimedi estate in the Ganjām district of the Madras Presidency.

A. This grant consisting of 3 plates is issued from Śvētak-*ādhishṭhāna* by the *P. M. P.* Anantavarman who is stated to have 'acquired the entire

kingdom of Kaliṅga through the strength of his arms'. It records the gift of the village Svalpa-Vēlura in the Khalgukhaṇḍa-*vishaya* to Bhaṭṭa Nānaṭaśarman belonging to Vachchha(Vatsa)-*gōtra*, Vājasanē[ya*]-*charaṇa*, and Kāṇva-*śākhā* (of the White Yajurvēda). The date given at the end appears to read *Samva 19 Phāla*(*Phālguna*) *śudi* 5 and has probably to be referred to the regnal year of the king. The *Dūtaka* was the *Mahāsāmanta* Aśōkadēva. The charter was composed by the *Mahāsāndhivigrahika* Gōvindadēva, registered (*lāñchhita*) by the *Mahādēvī* Vāsabhaṭṭārikā and engraved by Mahindrabhīma.

B. This is also a grant of 3 plates issued from Kaliṅganagara by the *Mahārāja* DĒVĒNDRAVARMAN, son of Rājēndravarman and the ornament of the Gaṅga family, and records the donation of the village Bukudravakō[ṇa] in Lōhadhaṅgara to one Gōvindaśarman, son of Bhaṭṭa Nārāyaṇa. The donee who hails from a place in Uttara-Rāḍhā, the name of which cannot be read with certainty, belongs to the Vatsa-*gōtra* and the Kaṭha-*charaṇa* of the (Black) Yajurvēda. The date of the record which is given at the end in decimal figures is 308 apparently of the Gaṅga era. The donor is identical with Dēvēndravarman of the Tekkali Plates (*Epigraphia Indica*, Vol. XVIII, pp. 311 ff.) and the present record shows that the correction by Hultzsch of *śatamayē* into *śata-trayē* in the former inscription is quite correct. The composer and the engraver of the present grant are also the same as in the Tekkali Plates, *viz.*, the *Rahasya* Śarvachandra and the *Akshaśālin Śrī-Sāmanta* Khaṇḍimala.

C. This charter is issued from Śvētak-*ādhishṭhāna* by the *Mahārāja* JAYAVARMADĒVA of the Gaṅga family. It is undated and records the gift of the village Bhusuṇḍā in the Ṇḍada(?)-śṛiṅga-*vishaya* to a Brāhman named Raviśarmman belonging to the Kāśyapa-*gōtra*, the Vājasanēya-*charaṇa* and the Kāṇva-*śākhā* (of the White Yajurvēda). The *Dūtaka* of the grant was the *Mahāsāmanta* Pūrṇadēva. While the name of the composer is not clear that of the engraver appears to be Vichitrahasta.

D. This grant is issued from Śvēt-*ādhisṭhāna* by the *Rāṇaka* JAYAVARMADĒVA of the Gaṅga family and records the gift of a piece of land belonging to the village Paḍalaśṛiṅga in the Khalugakhaṇḍa-*vishaya* to the Bhaṭṭaputra Padma Māhātra of the Vatsa-*gōtra* and the Kāṇva-*śākhā* (of the White Yajurvēda). The inscription was registered by Trikaliṅga-Mahādēvī, composed by Sāmanta and engraved by Vima[la*]chandra. The date of the record is given as the year 100 expressed both in words and decimal figures. It appears to me, however, that we have reason to suspect the genuineness of this record. Firstly, the era is presumably meant to be the Gaṅga-era and we do not know of this Jayavarmadēva from any other record of this period. Secondly, the script also appears to belong to a much later period and the donor, though only a *Rāṇaka* bears such titles as are found in the records of the Eastern Gaṅga rulers namely 'who acquired sovereignty of the whole Kaliṅga Kingdom by the prowess of his arms', etc. We do not know who the Trikaliṅga-mahādēvī of the present record was but we remember that the Ganjām and Orissa plates of Vidyādharabhañja were also registered by one Trikaliṅga-Mahādevī. It may be that this was only a title borne by the chief queen of the rulers who called themselves 'the lord of

the three kaliṅgas'. However, taking all the points into consideration it seems obvious that the writer of the present grant had a knowledge of the early Gaṅga and possibly also of the Bhañja records which he made use of in drawing up the present charter at the same time overlooking the other factors which might lead to the detection of his forgery.

E. This charter was also issued from Śvēt-*ādhishṭhāna* by the Gaṅga king *Paramamāhēśvara P. M. P.* DĀNĀRṆAVADĒVA, son of Prithvīvarman and records the donation of the village Kāsi[ḍḍā] in the Jayaḍā-*vishaya* on the occasion of a solar eclipse to Bhaṭṭa Durgakhaṇḍika, son of Bhaṭṭa Bōdhana and belonging to the Vatsa-*gōtra* and the Chhāndōga-*charaṇa* (of the Sāmavēda). The record is not dated and the ruler mentioned therein cannot be identified. The writer was the *Sāndhivigrahin* Dhanadatta and the engraver, Dāmōdara.

F. & G. These are said to be two grants of INDRAVARMAN of the Gaṅga dynasty. As no impressions of these records were received in this office I am not in a position to give further particulars about them.

H. This grant was also issued from Śvētk(tak)-*ādhishṭhāna* and is not dated. It records the grant of a plot of land in the village Vāḍōḍa in the Khalugakhaṇḍa-*vishaya* to one Bhaṭṭaputra Māhātra Māṇikadēva of the Vatsa-*gōtra*. While the inscription mentions the *Paramamāhēśvara P. M. P.* BHŪPĒNDRAVARMADĒVA, the grant seems to have been made by one Gaṅgakavilāsa *Rāṇaka* whose relationship with the ruling sovereign is not clear from the inscription. It was composed by the *Sāndhivigrahin* Aśōkadanta, engraved by Vimalachandra, and registered by a *Mahādēvī* whose name has apparently been omitted.

I. This grant was issued from Chikhalisthiti and is undated. It records the gift of the village Upalabāḍā to one Rēvaṇa-[nā]yaka by the *Rāṇaka* RĀMADĒVA born in the family of Tailapa. Nothing is known about the donor from any other record. It was written by the goldsmith Taula. The village granted is evidently identical with the village Upalada in the Parlakimedi taluk of the Ganjām district where the charter is said to have been found while digging a field.

Rajputana Museum, Ajmer.

The Curator reports to have copied 27 inscriptions for the Museum of which one came from the Partābgarh State, five from Jiran in the Gwalior State and twenty-one from the Jaisalmer State. As no impressions of these inscriptions were supplied to me by the Curator I base my review of them on the report sent by him.

The inscription from Partābgarh is fragmentary and contains only a portion of what was originally a large *praśasti.* The stone on which it is engraved was found lying in the Western part of the village Ghoṭārsī situated at a distance of about seven miles from Partābgarh. The epigraph belongs to the time of Durlabharāja and records the building of a temple of Pārśvanātha. This ruler is undoubtedly identical with the father of the Chāhamāna Indrarāja who, as we know from the Partābgarh Stone Inscription (*Epigraphia Indica,* Vol. XIV, pp. 182 ff.), built a temple of the Sun-god at Ghōṇṭāvarshikā (modern Ghoṭārsī village).

Four out of the five inscriptions from Jiran are found on four pillars of the cenotaph of Rāvat Bhānusiṁha of Deolia. One of them is dated the 14th day of the bright half of Āśvina, Samvat 1057, and records that the *Mahārājñī* Sarvadēvī, a wife of the *Mahāsāmantādhipati* Vigrahapāla, a Guhilaputra (Gehlot) of Nāgahrada, and the daughter of the *Mahāsāmantādhipati* Vasanta of the Solar family, erected a pillar in the temple of the Sun-god. The other three inscriptions are dated Wednesday, the 8th day of the dark half of Bhādrapada, Samvat 1065 (=Wednesday, 14th September, A.D. 1009, the year being Kārttikādi) and record that the *Mahārājñī* Jajjakā, another wife of the same Vigrahapāla and the daughter of the *Mahāsāmantādhipati* Dēva-ita of the Solar family of Bharukachchha, erected these pillars. In these are also found the names of the *Mahāsāmantādhipati* Vachchharāja, and Lakshmaṇa, respectively the maternal grandfather and the son of the queen, besides those of Vairisīha and Vāhila whose relationship with the chief's family is not mentioned. As Bhānusiṁha died in A.D. 1604, it is clear that these pillars were brought from a temple of the Sun which had been built in the neighbourhood more than six hundred years prior to his death and was probably in a ruined condition at the time. The fifth inscription from Jiran is found on a stone slab and bears a much later date, being the 11th day of the dark fortnight of Āshāḍha, Samvat 1617. It records the erection of a temple at Jiran belonging to Mēdapāṭa by Rāja Ālhaṇa, his wife [Vālī] and their sons Sōniṅgara, Akhērāja and Udā when Rāṇā Udayasiṁha was ruling at Chitrakūṭa (Chitor).

Of the twenty-one inscriptions from the Jaisalmer State only those mentioning the names of rulers are very briefly noticed below as a detailed report on them will appear in the Annual Report of the Museum. They are all comparatively late in date and contain the names of local chiefs only. The earliest of them is found on a *Gōvardhana* or a four-sided pillar, each side containing an image of a deity—the four deities being Brahmā, Vishṇu, Śiva and Sūrya. Such pillars are usually set up in this part of the country to perpetuate the memory of some deceased person or to mark the construction of a tank or temple. The inscription is dated Sunday, the 10th day of the bright half of Bhādrapada, Bhāṭika Samvat 539 (=Sunday, 11th August, A.D. 1163) and records that during the reign of Vijayarāja, the queen Rājaladēvī built a tank in memory of her daughter's son Sōhāgapāla. Three memorial inscriptions found at the foot of the Jaisalmer fort record that the *Mahārāja* Gaḍhasiṁha died on Wednesday, the 11th day of the dark half of Mārga(śīrsha), Vikrama Samvat 1418 and Bhāṭika Samvat 738 (=Wednesday, 24th November, A.D. 1361) and that his two queens Tāraṅgadē, the daughter of Rāṇa Rājadhara, and Nāthaladē became *satī*. It is also stated that the memorial stones were set up during the reign of the *Mahārāja* Śrī-Kēsarī. The other inscriptions from Jaisalmer contain the names of the following rulers: Rāja Śrī-Bhaṭṭi Lakshmaṇa (V.S. 1481, Śaka 1346); Rāula Vīrasīha, son of Lakshmaṇa (V.S. 1494, Bhāṭika 813); *Mahārāja* Rāval Dēvīdāsa (V.S. 1512); *Mahārājādhirāja* Rāval Dēvakarṇa (V.S. 1539, Śaka 1404); *Mahārājādhirāja* Rāval Mūladēva (V.S. 1614); his son Rāval Harirāja (V.S. 1626); his son Rāval Bhīma (V.S. 1656, Hijri 1008 of the time of the Pātasāha Akbar,

and also V.S. 1673, Śaka 1538, Bhāṭika 993) who married Dāḍimadē known as Karmavatī in her father's family; Rāval Kalyāṇadāsa (V.S. 1673, Śaka 1538, Bhāṭika 993) and the *Mahārājādhirāja* Rāval Amarasiṁha (V.S. 1736).

Central Museum, Nagpur.

The Curator of the Museum informs me that the Tirōḍi Plates of the Vākāṭaka ruler Pravarasēna II and an incomplete Vākāṭaka plate from Mōhallā in the Drug district which were noticed in last year's *résumé* and have since been published in the *Epigraphia Indica* have now been acquired for the Nāgpur Museum. Another Vākāṭaka charter consisting of five copper plates and complete with seal was recently discovered at Paṭṭan, a village in the Multai tahsil of the Betul district, C. P. This has also now been acquired for the Nāgpur Museum. The plates are said to have been discovered by a farmer in 1935 while ploughing a field. They were issued from Pravarapura by the Vākāṭaka ruler PRAVARASĒNA II and record a royal grant of 400 *nivartanas* of land by the royal measure in the village of Aśvatthakhēṭaka which was situated on the road to Varadākhēṭa in the Lōhaṇagara division, for the upkeep of a *sattra* or charitable hall connected with the footprint (?*pādamūla*) of the Mahāpurusha, *i.e.*, Vishṇu. The charter is dated the seventh day of the dark fortnight of Kārttika in the 27th year of the king's reign. The gift was made at the request of Nārāyaṇarāja. The record was written by Kālidāsa, a subordinate of the *Sēnāpati* Kātyāyana and engraved by the goldsmith Īśvaradatta, a subordinate of Kuṇḍarāja who is identical with Kuṇḍarāja, the son of Śatrughnarāja, mentioned in the Chammak Plates of the same ruler. It is stated at the end of the charter that Pitāmaha and Nanda caused it to be drafted (?*kārāvaka*). The record is important in that it advances the reign of Pravarasēna II by about four years, the latest year so far known being the 23rd as found in his Dudiā (*Epigraphia Indica*, Vol. III, pp. 262 ff.) and Tirōḍi (*Ibid.*, Vol. XXII, p. 174) plates. This inscription is under publication in the *Epigraphia Indica.*

Information has reached me also of the discovery of two sets of Rāshṭrakūṭa copper-plates at Sirso in the Akola district, C. P. But as I have not examined their impressions I am not in a position to give any details about them. I, however, understand that an attempt is being made to acquire them for the Nāgpur Museum.

Government Museum, Madras.

Three copper-plate inscriptions were acquired by the Government Museum, Madras, during the year under review. The earliest of them is the first plate of a set of two belonging to the reign of the *Mahārāja* HASTIN of the Parivrājaka family. The record on these plates has already been edited by Fleet (*Corpus Inscriptionum Indicarum*, Volume III, pp. 95 f.). Next in point of chronology is the set of three plates of the reign of VINAYĀDITYA, one of the Early Chālukya rulers of Bādāmi. The inscription on these plates is dated Śaka 614, the 11th year of the reign of the king and records the gift of some lands in the village Ālikunda situated in Peḍekal-*vishaya* to Trivikramaśarman, son of Haridattaśarman and grandson of Svastiśarman of the Bhārgava-*gōtra*. The grant was

made while the king was camping in the *vijaya-skandhāvāra* of Mahākūṭa-tīrtha (Mahākūṭa in the Bādāmi taluk of the Bijāpur district). The language of the record is Sanskrit and the characters are Kanarese of the 7th Century A.D. On the seal is to be seen the figure of a standing boar which was the *lāñchhana* of the Chālukyas. This record has been published in the Telugu Journal *Bhārati* (Vol. XIII, pt. iv, pp. 483 ff.). The third is a grant of the Eastern Chālukya king GUṆAKA-VIJAYĀDITYA who ruled from A.D. 844 to 888. It registers the gift of the village Śāntagrāma in the Gudravāra-*vishaya* to one hundred Brāhmans of various *gōtras*, on the occasion of a solar eclipse. It bears no date. This is also published in the *Journal of the Andhra Historical Research Society* (Vol. V, pp. 112 ff.).

Provincial Museum, Lucknow.

Rai Bahadur Prayag Dayal, the Curator of the Museum. reports that four inscriptions were acquired for the Lucknow Museum during the year. Out of these three are only fragments. one being a Tibetan record beautifully engraved on a piece of slate. The text of the last mentioned document has not yet been identified but it seems to contain a description of hell. The name of Maudgalyāyana, one of the disciples of the Buddha, is also mentioned in it. The fourth is a single copper-plate issued by the *P. M. P.* JAYACHCHANDRADĒVA of the Gāhaḍavāla family of Kanauj. It consists of 36 lines. The writing is well preserved except a few letters at the beginning of the last four lines containing the imprecatory verses which are lost owing to a piece of the plate being broken off. The genealogy set forth in this charter is the same as that found in the Kamauli Plates and other inscriptions of the same ruler. The date of the record which is given both in words and in figures is *Samvat* 1237 *Phālguna sudi* 7 *Ravau* when the sun entered the sign of Zodiac called Mīna, and regularly corresponds to Sunday, the 22nd February, A.D. 1181, taking the year to be Kārttikādi. The inscription records that the king, after bathing in the Ganges at Bārāṇasī, granted the village of Maṁdara along with that of Kaḍāhi situated in the Dēhaduāra division to the learned Brāhman Brahmaśarman, the son of Gōtrānanda and the grandson of Sarvvānanda and belonging to the Vatsa-*gōtra* and the five *pravaras* Bhārgava, Chyavana, Āpnavāna, Aurva and Jāmadagnya. The charter was written by the *Mahākshapaṭalika* Śrīpati who is also mentioned in the other grants of this ruler.

Curzon Museum of Archæology, Muttra.

Three fragmentary inscriptions in Brāhmī characters of the Kushāṇa period were acquired for the Museum. Of these only one, inscribed on an *āyāgapaṭa*, deserves mention as it contains the date. It is in two lines and may be read as :—

1......*saṁvatsare 20.1.m[ā] 2 di 20.6*

2......*sa cha ari[ha*]ta-pūjāye.*

The year apparently belongs to the Kushāṇa era and has to be referred to the reign of Kanishka. One peculiarity of this date is that the inscription seems to refer to the second month of the year. Usually in Kushāṇa inscriptions,

particularly in those from the Mathurā region, the date is given either in seasons and fortnights or the name of the month is expressly stated.

Provincial Museum, Peshawar.

The Curator reports the acquisition of two inscriptions in Kharōshṭhī characters engraved on the bottom of two stone relic caskets and a stone seal with a legend in the characters of the Gupta period. These are being dealt with by Mr. N. G. Majumdar, Supdt., Archl. Section, Indian Museum.

Prince of Wales Museum of Western India, Bombay.

Two sets of copper plates belonging to the Kadamba rulers Ravivarman and Krishṇavarman (II) were purchased for the Museum. Both these records have already been published in the *Epigraphia Indica* (Vol. XVI, pp. 264 ff.).

MOSLEM EPIGRAPHY.

By Mr. G. Yazdani.

During the year under report some forty new inscriptions were copied, nine of which belong to the Punjab, one to the United Provinces, one to the Central Provinces, four to the Bombay Presidency, nine to the Madras Presidency and fifteen to H. E. H. the Nizam's Dominions. The Punjab inscriptions have been copied by Dr. M. Nazim who has been requested to edit them for the next number 1937-38) of the *Epigraphia Indo-Moslemica.*

In the United Provinces an inscription was brought to my notice by Dr. K. A. Ansari, Assistant Engineer, Northern Circle, who also furnished me with two impressions of the inscription and a report on the circumstances in which it had been found. The inscription is dated 721 H. (1321 A.D.) during the reign of Ghiyāthu'd-Dīn Tughluq and mentions the name of one Ikhtīyāru'd-Daulat-wad-Dīn, a noble of the court of 'Alāu'd-Dīn Khaljī. Ikhtīyāru'd-Daulat might have occupied an important position at the Court of Ghiyāthu'd-Dīn Tughluq as well, for the latter king ascended the throne of Delhi only five years after 'Alau'd-Din. As the inscription is important from both historical and palæographic points of view it is being studied carefully and will be published in due course.

The inscription from the Central Provinces is in Persian verse and it records the erection of a mosque at Dhamoni* by Randūla Khān a general of Aurangzeb. As Dhamoni has had a chequered history from the 15th to the 17th centuries, belonging to Hindu Rajas at one time and the Mughal Kings at another, this inscription is important, as showing the possession of Dhamoni by the Mughal Emperor in the 17th century. The inscription was first noticed by R. M. Crofton, Esq., I.C.S., now the Director General of Revenue in Hyderabad and a rubbing of it was subsequently sent to me by the Deputy Commissioner of Saugor.

Dr. N. P. Chakravarti, Government Epigraphist for India, kindly sent me rubbings of three inscriptions which he had received for decipherment from the Superintendent, Archæological Survey, Western Circle, Poona. Of these two inscriptions are important, one belonging to the reign of Muzaffar Shāh of Gujarat,

* In the Banda Tahsil, 29 miles north of Saugor.

being dated 21st Zu Qa'dh 925 H., and the other mentioning the name of Mubārak Khaljī and recording the erection of a mosque. Both these inscriptions were found at Jalor,, now in the Jodhpur State but originally the capital of the ancestors of the Nawabs of Pālanpūr. As the rubbings of these inscriptions, which have been received, are not very clear and as there are several other unpublished inscriptions at Jalor, arrangements are being made to obtain another set of the rubbings of these records, for it is hoped their texts will throw fresh light on the history of Gujarat Kings. The Government Epigraphist sent me the rubbing of another inscription which is now preserved in the Rasūlkhānjī Museum at Junagarh. The inscription is carved in Persian as well as Nagari characters and mentions the building of a shrine in 862 H., during the reign of Sulṭān Quṭbu'd-Dīn of Gujarat. This inscription with necessary notes is being published in the ensuing number (1935-36) of the *Epigraphia Indo-Moslemica*.

Of the nine inscriptions from the Madras Presidency, five belong to the mosque at Ichchapuram in the Ganjam district. The latter records are dated 1102 H. (1690 A.D.) and mention the building of an inn and a mosque by one Muṣṭafa Khān. Of the other four inscriptions from the same Presidency, the most important epigraph is from a *dargāh* at Calingapatam, Chicacole taluk, Ganjam district. It records the erection of a 'grand mausoleum' by Muḥammad Qāsim bin Muḥammad Ḥusain on the 28th of Ramadhān, 1038 H. The language of this inscription is Persian.

Of the fifteen inscriptions discovered during the year under report in H. E. H. the Nizam's Dominions, the most important are the following:—

(i) *The inscription on the Kaghzīpura Mosque.* It contains the genealogy of Baihmanī kings and also gives the date of the building of a mosque and a tank.

(ii) *The inscription over the Baitāl Bārī Gate of the Taltam Fort.* It records the building of a gate at the Taltam Fort in the 49th regnal year of Aurangzeb (1116 H.) by Abū Sa'īd son of Ḥātim Khān. Aurangzeb at this time was occupied in the conquest of the Deccan and he. strengthened the defences of the forts where the Imperial army was garrisoned. The language of the inscription is Persian and the style of writing *Nāstā'līq*.

(iii-iv) *Two inscriptions from the Taltam Fort.* These inscriptions are interesting as giving the dates of the building of the original defences of the Taltam fort by Murtaza Niẓām Shāh I in 989 H. (1581 A.D.).

(v-vi) *Two inscriptions from the Mudgal Fort.* These records throw light on the wars which took place between the Bijapur kings and the Rajas of Vijayanagar in the latter half of the 16th century. These inscriptions also contain the dates of the construction of two bastions during the reigns of the Bijapur kings, 'Alī 'Ádil Shāh I and Ibrāhīm 'Ádil Shāh II.

(vii) *Inscription on a mosque at Mudgal.* This inscription is a fine specimen of the Thulth style of writing and contains the name of the calligraphist—Karīmu'd-Dīn son of 'Alī.

The *Supplement* to the 1933-34 issue of the *Epigraphia Indo-Moslemica* which deals with ninety-six inscriptions of Ahmadnagar, Junnar, Satara, Broach and Surat is almost ready and will be issued shortly. The majority of these inscriptions are being published for the first time and great credit is due to Dr. Nazim who has deciphered these records, translated their texts and added suitable notes to show their historical and palæographic importance.

SECTION IV.—MUSEUMS.

INDIAN MUSEUM, CALCUTTA.

By T. N. Ramachandran.

Acquisitions.

During the year under report the Museum acquired by presentation an interesting bronze image of Buddha (9406) found at Nālandā, the Navagrāma copper plate grant of Mahārāja Hastin (9521) dated G. E. 198 and a group of nine terracottas (9522-30). The image of Buddha (Plate XXXVI, fig. 1) which comes from Nālandā was presented by Mr. Ajit Ghose. Though small (height 3⅛″), it is of sufficient iconographic importance, representing as it does Buddha seated in the attitude of touching the earth (*bhūmisparśa-mudrā*), a type styled in the *sādhanas* as *Vajrāsana-Buddha-Bhaṭṭāraka.* The thunderbolt (*vajra*) is shown in front, on the seat itself, to mark it as the 'adamantine throne' (*vajrāsana*), seated on which Buddha attained his *saṁbodhi.* What is more unusual, however, is the fact that the *āsana* instead of being the usual lotus throne (*padmāsana*) is a seat of grass (*darbhāsana*), which recalls to mind the scene on the eve of the Buddha's Enlightenment. While on his way to the *bodhi-maṇḍa* from the river Nairāñjanā, the Bodhisattva is said to have received from a grass-cutter named Svastika a handful of grass. On reaching the *bodhi* tree he spread out an "excellent layer of grass with the points inwards and the roots outwards, and set himself thereon, with legs crossed, turned to the east, the body upright" and resolved not to get up from that seat until he had attained *bodhi.*[1] According to the *Nidānakathā*[2] a seat, 14 cubits long, appeared from where the grass was spread, the blades of grass arranging themselves "in such a form as would be beyond the power of even the ablest painter or carver to design". The Ceylonese version of the incident avers that on the spot where the grass touched the ground the earth opened and "by the power of his *pāramitās*, a throne arose, 14 cubits high, the roots of the grass being hid, whilst the blades appeared as a beautiful canopy wrought by the skill of a clever workman".[3] The representation of the *āsana* here as a throne of grass is significant, for all the versions of the life of Buddha are agreed in stating that "on seeing the throne, the prince rejoiced, and sat down upon it animated by great resolve and courage".[4] The *āsana* of the image bears on its under-side a seal with a Nāgarī inscription in relief containing the Buddhist creed of Dharma (*Ye dharmā*, etc.).

The Navagrāma grant of Mahārāja Hastin (9521), was presented by Rao Bahadur K. N. Dikshit, Deputy Director General of Archæology, who has edited

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[1] *Lalita-Vistara*, Ed. Lefmann, p. 289.

[2] Trubner's Oriental Series, Vol. I, *Buddhist Birth-stories*, p. 96.

[3] R. S. Hardy, *A Manual of Buddhism*, p. 175.

[4] *Acta Orientalia*, Vol. X, p. 147.

it in the *Epigraphia Indica*, Vol. XXI, Part III. The plate which comes from Nagod State, C. I., consists of the left half of the first of a set of two plates and records in Sanskrit the grant to certain Brahmans of a village called Navagrāma in the *rāshṭra* of the Pulinda chief (apparently a feudatory of the *nripati-parivrājakas*) by the Mahārāja Hastin in the year [1]98 of the Gupta era.

The terracotta figures (9522-30) were found by Pandit Rameshwar Dayal. Deputy Magistrate, near Ghosi, District Azamgarh, U. P., in an extensive and high mound, 40 to 50 feet in height and about 117 *bighas* in area. There are also indications that it must have been a large settlement representing many periods. Bricks of Gupta and Mauryan periods and coins, beads, etc., are also reported to have been found at this site.

Though the collection presented to the Indian Museum consists of only nine figures, one could recognise in them at least three types. The commonest type accounting for 6 out of 9 specimens (Plate XXXVI. figs. 5 and 8) bears the following characteristics: (1) The general features are adequately represented. The figure is moulded entire, no part being separately made and affixed. Subject to the 'law of frontality' the figures are modelled in the round and are not reliefs. The material is a hard grey clay with glossy red wash. (2) The face is oval. The nose, though prominent, is not formed by pinching the clay together, as is the case with the Indus Valley terracottas, and forms a projection continuous with the forehead on which a *tilaka* is shown. (3) The eyes are oval and the pupils are indicated. The upper lip is overdrawn and would consequently appear to hang. (4) The breasts and hips are developed and the navel is large and conspicuous (*Cf.* Plate XXXVI, 5). (5) The ear-rings, sometimes heavy and large are either of the *patra-kuṇḍala* type or of the ordinary annular type. The former is represented as an ordinary disc with or without a dot in the centre or a bigger disc with smaller dots encircling a bigger one, the design resembling the seed-vessel of a lotus. The annular type of ear-ring (kuṇḍala) hangs either vertically from the ears or horizontally. (6) The single necklace bears designs consisting of punched strokes or circles, the latter in one case being in two rows alternating with double vertical strokes. (7) The figures wear wristlets. The arms, wherever present, are bent and held at the sides or in one example raised to the head in the act of adjusting the headdress. (8) The headdresses are fan-shaped, sometimes with a tiara-like smaller course over the forehead of indented upward strokes. In one case, a female figure is clad in a long thin robe reaching from the neck to the ankles, but showing the features of the body. This particular figure is interesting as its base is hollow, so as to fit into the upper end of a pole.

The second type, of which there are only two examples (Plate XXXVI, fig. 6) shares most of the characteristics of the first type with the difference that the eye-brows, lids and pupils, the lips and the *tilaka* marks are separately made and affixed to an oval face, that the ear lobes are dilated with a view to insert *patra-kuṇḍalas* (not shown here), and that the forehead shows, in the centre well-groomed hair as in the case of the Mathurā railing Yakshīs, for which reason this type should be placed later than the first.

The third type represented by a single example (Plate XXXVI, fig. 7) is interesting in several ways. The face is rectangular (almost square), with a prominent nose running continuous with the line of the forehead. The eyes as well as the pupils are incised while the mouth is wedge-shaped. The ears (only one remains), wear *patra-kuṇḍalas*, also rectangular, evidently in harmony with the rectangular shape of the face. The forehead, of which little remains, has a *tilaka* mark affixed to it, while the small and tapering head-dress has a vertical indenture. The body shows a strand-like necklace with slanting strokes indented on it, the nipples affixed slightly irregularly so as to admit between them the passage of the *yajñopavīta*, a chord with similar indentures, a disc with a dot in its centre similar to the *tilaka* on the neck and a large navel. The arms are bent and are adorned with wristlets; the left hand holds a cup or the span of a ladle, while the right hand is apparently engaged in taking the contents of the left. That the figure represents a Brahman is clear from the *yajñopavīta*, the *tilaka* on the forehead and a similar mark on the neck, which may stand for the ritual mark that every Brahman (*dvija*) has to make with the ash (*bhasma*) from the sacrificial fire. Evidently the Brahman in question is here engaged in taking out from the cup in his left hand *lājas* or fried rice and offering them to the fire-god. This unique specimen, in view of the explanation given above, may be said to date from historic times, probably from the Śuṅga period with which is associated a Brahmanical revival.

As regards dating it is apparent that an earlier date has to be assigned to the first and third types than the second type. If, as indicated above, a Śuṅga date is attributed to the third, then a first or second century A.D. date may, with some confidence, be hazarded for the second type.

Among the antiquities from Sarnath numbering about 35 that were acquired on loan from the Director General of Archæology mention may be made of two interesting fragmentary sculptures. Both are representative of the classical style such as one finds in the Gupta period. One (9513) (Plate XXXV, fig. 1) is a piece, 7″×5¼″, showing a Vidyādhara couple flying and in the act of worshipping with flowers the principal deity of the sculpture, which is missing. Flower trays are held in their left hands from which one flower is taken at a time by the right hand to be scattered below. While an everlasting state of soaring is apparent in the composition, the action that is suggested, *viz.*, adoration or worship with flowers takes place within a narrow compass. The bodies of the couple are plant-like in swaying rhythm and plasticity, the result being a flowing movement of life which characterised all Gupta sculptures. The youthful appearance of the couple, the smoothness of their limbs and their relative freedom from jewellery and apparel stand in sensitive relation to their bodies. A comparison of this flying group with other groups of known date, such as from Gwalior,[1] from Aihole, Kanheri and Sārnāth[2] will show similarities between ours and Sārnāth and Kanheri ones. A *mithuna* couple probably of Vidyādharas from Sārnāth now exhibited in the Museum and bearing No. 8568 is exactly like

[1] St. Kramrisch, *Indian Sculpture*, fig. 60.

[2] A. K. Coomaraswamy, *History of Indian and Indonesian Art*, figs. 165, 164 and 161.

the Vidyādhara couple in question, though the attitudes are different. In both the man wears a single necklace, presents the same anatomical features and a heavy coiffure of curly hair, wears *kuṇḍalas* and wristlets and presents the same facial expression. The woman in both has the same single necklace, armlet, wristlet, *mekhalā* with pellet designs marked on it and *patra-kuṇḍalas* and presents a similar arrangement of braided hair. The Vidyādhara is also similar to one occurring on a Buddha plaque from Sārnāth (S. 34), now in the Indian Museum, with this difference that the latter has his left leg bent, the feet pointing upward, while the former has his right leg stretched and his left bent in such a way as to form with the right leg a straight line parallel to the ground line. Besides, the body of the Sārnāth Vidyādhara is heavier. Obviously the fragment belongs to the 5th century A.D. when Gupta art was at its perfection.

Another fragment (9516), 3′×1′ 5½″, also from Sārnāth is part of a frieze (Plate XXXV, fig. 2) showing four of the planets including Rāhu, who presents as usual a demoniac appearance. Rāhu is shown at the extreme right end of the frieze with a huge head and feathers tucked in to his hair fan-wise. A big *patra-kuṇḍala* is seen in his right ear and a relatively small *makara-kuṇḍala* in his left. Very little of his body is shown and what is shown of it is hidden by stout arms, the hands bent down with the palms turned outward. His moustached mouth is open showing a row of teeth, his nostrils dilated, his eyes are wide open and his palms outstretched—all giving to the face an expression of joy or gratification. To Rāhu's left stand three planet deities, *viz.* Bṛihaspati, Śukra and Śani, all in *tribhaṅga* and with halos behind their heads, each holding an *akshamālā* in the right hand and a *kamaṇḍalu* in the left, except that in the case of Śani, the left hand is broken and missing. Their under-garments tied in the *kachchha* fashion with the *uttarīya* encircling them have the ends secured in a knot thrown elegantly on the right. A necklace, armlet and wristlet and the *yajñopavīta*, are other common features of the three. As befits their character as Brahmans, Bṛihaspati and Śukra have their hair arranged in a *jaṭāmakuṭa*, while the hair of Śani is arranged turban-wise, braided and secured by a wreath in front. While Bṛihaspati has no *kuṇḍalas*, the other two wear *makara-kuṇḍalas*, and Śani has his left leg bent cross-wise. The features compare well with those of Bhumara and other Sārnāth divinities, particularly with those of a Padmapāṇi in the Museum collection (S. 37) and another divine being also in the Museum (Ms. 20). A comparison of this frieze with later *Navagraha* representations such as those of the Eastern School[1] will bring out the superiority of this early work. The presence of Gupta features will easily admit of the frieze being assigned to the 6th or 7th century A.D.

Among the images acquired during the year under report under the provisions of the Treasure Trove Act, an image of black chlorite stone (9481), (Plate XXXV, fig. 3), representing Pārvatī is worth noting. It hails from Dakshin-Muhammadpur near Comilla, Tippera District, where it was found in the

[1] R. D. Banerji, *Eastern Indian School of Mediæval Sculpture*. Plate LXIII, b.

re-excavation of a silted tank. The image, 4′-2″×1′-10½″, represents Pārvatī standing in the *samabhaṅga* pose on a lotus, with an elaborate *prabhāvalī* serving as the back-ground. Two lotuses spring up from behind the lotus on which Pārvatī is standing, flanking as it were the entire frame of the goddess, and at the same time standing between herself and her two attendants (*parivāradevatās*). one on either side of her. Pārvatī presents a majestic figure, adorned as she is with a long and tapering *jaṭā-makuṭa* showing the *kīrttimukha* in its front, *patra-kuṇḍalas* in the ears, three necklaces, one of which in three strands passes elegantly over her full bosom and reaches below the stomach, armlets, wristlets, anklets (*pāda-saras*) and an under-garment reaching down to her ankles and bound by a waist-zone with vertical and horizontal tassels, the former displaying *kīrttimukhas*. The third eye is prominent on the forehead. Her right hand with the mark of a lotus in it indicates *varada* while her left, though hanging down like the right hand holds elegantly with feminine restraint a lotus by its stalk. The *parivāradevatās* are similar to the Devī herself in the matter of decorative details, though standing in the *tribhaṅga* pose and with different attributes in their hands. The one on the right of the Devī holds a *padma* in her left and a *chāmara* in her right, while the other on the left of the goddess holds a *chāmara* in her right and a *kamaṇḍalu* in her left. In both, the third eye and the long necklace of the main figure are absent, to mark their inferiority. The bottom of the pedestal shows in miniature the lion vehicle (*vāhana*) of the Devī on the left and other figures which from right to left are, a *chāmara*-bearer, a Deva attended by two of his women in the act of worshipping with a garland held in his hands, another Deva in meditation, a stand probably with a book on it, a lotus bud (?) and a *chāmara*-bearer. The *prabhāvalī* shows a number of decorative details. Rearing leogryphs (*vyāla*) with riders stand on recumbent elephants, which in turn are placed on capitals, while above, the *prabhāvalī*, which is circular, shows, beside the halo behind the Devī's head, a foliage course along the border, *kinnarīs*, one on either side of the Devī, one playing on the lute and the other keeping time with cymbals, flying Vidyādhara with garland in hands on either side, and further above, in a row, Gaṇeśa, Brahmā, Śiva, Vishṇu and Kārttikeya with their respective emblems and *vāhanas*. This rare image, which is in an excellent state of preservation, is of great iconographic importance. As an excellent example of the Bengal school, it may be placed in or about the 12th century A.D.

Noteworthy purchases during the year are two fragmentary sculptures from Mathurā of red stone, a sculpture in black chlorite stone, representing Durgā as Siṁhavāhinī and nine sets of copper plate grants. One of the Mathurā finds (9403). 4½″ high, shows the bust of a Yakshī (Plate XXXVI, fig. 9) that formed part of a *mithuna* similar to those on the Bhūteśvar pillars.[1] A flowing curve of compositional movement characterises the Yakshī, whose tilted head, open eyes and smiling mouth at once suggest that she is given up like the Bhūteśvar Yakshīs to the pleasure of the moment, *viz.*, love. The caressing arm of her lover, going round her neck, the hand holding a flower and gently resting on her

[1] L. Bachhofer, *Early Indian Sculpture*, pl. 93.

left shoulder, coupled with a round amplitude of the modelling of her limbs, particularly the bosom, is suggestive of a complaisant sensuous feeling which characterises all Mathurā *mithunas*. The naturalism of the Mathurā school which has physical mass for its substance and sensual appeal for its aim is present here, though perhaps the latter has absorbed the former so very completely, as will be evidenced by the modelling of flesh as relaxed, as to prove that "the plastic sense has been entirely steeped in the physical". The hair combed and twice partitioned in the forehead, leaving a central patch of hair there, and secured in a knot behind, drooping ear-rings, two necklaces, one close to the neck and the other, which is just a course of pearls, dangling elegantly between the full bosoms, and the breasts themselves suggestive of relaxed sensitive flesh are the main features of this Yakshī which are also present in the well-known Bhūteśvar Yakshīs and other allied figures from Mathurā.[1] On stylistic grounds the figure may be assigned to the second century A.D.

The other Mathurā find (9402) is a piece from a rectangular slab, 9″×7″, showing on one side lotuses spread within a border and on the other five horsemen riding on horses, the legs of the fifth alone being visible. The party moves to the right. Two of the horsemen in front appear to lead the others and seem to enjoy a status higher than that of the others as evidenced by their apparel and turban. One of them, who is shown in the back-ground, wears a turban, the knot of which is thrown elegantly to the right as in the case of Śuṅga head-dresses. The turban in the case of the other has the knot in the centre itself, while his apparel consists of trousers and a *kañchuka* or coat extending down to the waist. A necklace with a broad border, crossing near the breasts is present. Similar necklaces and turbans occur in Mathurā[2]. The sculpture in question may be assigned to the first century B.C. or A.D.

A stone sculpture (9285), 14½″×8½″ hails from Bihar and represents Durgā riding on her *vāhana*, the lion (for which reason she may be called Siṁhavāhinī), (Plate XXXVI, fig. 10). Durgā has four hands; her upper right hand, which holds a long sword is lifted up as in striking while her lower right is bent low, with its palm indicating *varada*, the idea suggested being annihilation to those that defy her and protection and blessings to those that beseech her; the upper left holds a shield and the lower left a trident. Her hair is arranged in a becoming bun-like knot. *Patra-kuṇḍalas*, a third eye on the forehead, two necklaces, three-stranded *yajñopavīta*, and a long necklace? (perhaps the *vanamālā*) arranged *yajñopavīta*-like and reaching the hips, are some of the noteworthy features of this image which are also shared by the earlier specimens of the Eastern School, particularly from Nālandā (Bihar).[3] The sculpture may therefore be said to date from the ninth or tenth century A.D.

In all 163 coins were added to the coin cabinet of the Indian Museum, out of which ten gold coins deserve special mention. Four of these were purchased

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[1] L. Bachhofer, *Early Indian Sculpture*, figs. 75, 92, 93, 95, 98, 101; J. Ph. Vogel, *La Sculpture de Mathura (Ars Asiatica xv)*, pls. XII, XVI-*b*, XVIII, XXI-*a*, and L.

[2] J. Ph. Vogel, *La Sculpture de Mathura*, pls. VII-*c*, VIII-*b*: XXXIV-*a*, XXXV-*a*, *c*, XXXVIII-*b*, LII-*a*.

[3] St. Kramrisch, *Indian Sculpture*, fig. 98.

from Mr. Ajit Ghose of Calcutta. The first (Plate XXXVI, fig. 3) is a double stater of Kadphises II and shows details that occur in at least four different coin types of Kadphises represented elsewhere.[1] Monogram on the obverse is similar to No. 154 of pl. VII of Smith's catalogue, while that on the reverse resembles No. 152, pl. VII of the same catalogue. The second is a quarter stater of Kanishka with its obverse similar to that of an Indian Museum coin,[2] and its reverse to that of another coin, also of the Indian Museum[3] and of a coin of Huvishka in the British Museum[4] with a monogram figured as pl. VII, 154 of Smith's catalogue. The third is of Vāsudeva, similar in type to a coin in the Indian Museum collection[5] and presents on the reverse Śiva four-armed and three-faced, standing facing, holding noose, kettle-drum (*dhakkā* ?), vase and trident, with bull behind standing facing right, the legend *Oesho* on left and on the right a monogram figured by Smith as 165 of pl. VII. The fourth is a rare coin of Samudragupta of the Aśvamedha Type (Plate XXVI, fig. 4) with legend reading as "*Rājādhirājaḥ pṛthivīm=avitvā (divaṁ jayaty=ā) hṛta-vājimedhaḥ*"[6]. A coin of Chandragupta II, also purchased, is of the Archer Type and is similar to one figured by Allan[7] with this difference that the monogram on the reverse resembles that found on another coin.[8] Five gold coins were purchased by the Trustees of the Indian Museum and presented to the Indian Museum cabinet. One of them, which is of Kanishka, is similar to a coin figured by Gardner.[9] The second is of Huvishka similar to coin No. 9 of Smith's catalogue (p. 77), but with the bust of the king to right, club in his right and *aṅkuśa* in his left hands and the legend in "badly formed Greek letters", *Shaonano shao Hoveshki Koshano*. The third, also of Huvishka, whose reverse shows Skanda and Viśākha standing, is similar to the reverse of a smaller coin in the British Museum[10] and to the obverse of another, also of the British Museum.[11] The fourth is a coin of Samudragupta of the Standard Type similar to one in the Indian Museum[12] but shows in addition a dagger tucked to the waist of the king and the marginal legend, (*sama*) *raśatavitatavi......ripuraji......* The fifth and the last coin presented by the Trustees is an interesting issue of Chandragupta I of the "king and queen" type, similar to that of *Smith*, No. 1 (p. 99) but showing Lakshmī seated in the *lalita* pose (right leg hanging down) on couchant lion facing right, with a fillet in her out-stretched right hand and a monogram on left similar to that figured by Allan and Smith.[13]

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[1] Gardner, *British Museum Catalogue of Indian Coins*, pl. XXV, figs. 7, 9; V. A. Smith, *Catalogue of the coins in the Indian Museum*, p. 68, type 1, No. 1 and type 3, No. 6.

[2] Smith, p. 69, No. 1.

[3] *Ibid*, p. 70, No. 3.

[4] Gardner, pl. XXVII, fig. 20.

[5] Smith, p. 84, No. 3, pl. XIII, 8.

[6] *J. A. S. B.*, Vol. X, No. 6, pp. 255-6.

[7] *Catalogue of Indian coins*, pl. VI, fig. 17.

[8] *Ibid*, pl. VI, fig. 13.

[9] *British Museum Catalogue of Indian Coins*, pl. XXVI, 6.

[10] *Ibid*, p. 149, No. 113, pl. XXVIII, 23.

[11] *Ibid*, p. 149, No. 111.

[12] Smith, pl. XV, 6.

[13] J. Allan, *Catalogue of the Coins of the Gupta Dynasties*, p. 30, No. 88; Smith, pl. XVIII, 21.

CENTRAL ASIAN ANTIQUITIES MUSEUM.

By Dr. M. A. Hamid.

Curating and Preservation.

In addition to Sir Aurel Stein's Central Asian collection, the Central Asian Antiquities Museum, New Delhi, contains antiquities from Baluchistan excavated by Mr. H. Hargreaves at Nāl during 1925 and those brought by Sir Aurel Stein from his archæological tours during the year 1927-28. This latter hoard of antiquities was lying in the Museum stores awaiting preservative treatment, before their systematic study could be attempted in comparison with materials from other sites. Their treatment was started last season and continued during the year and the collection from South Baluchistan has now undergone the necessary chemical and preservative treatment and the objects from various sites in North Baluchistan are under treatment.

One of the paintings in the Central Fresco gallery was badly damaged by the fall of a patch of plaster from the ceiling. Fortunately the damage done was mostly to the plaster in which the painting was set rather than to the painting itself. This was repaired by pouring thin plaster cream from the top and applying even pressure from underneath.

In some of the paintings there has been a tendency for the plaster as well as the paint to peel off from the surface. This defect has been remedied by repairing the plaster coating and fixing the paint with a thin solution of cellulose acetate.

With the exception of a few large metal objects treated by the Archæological Chemist, most of the antiquities of this Museum collection did not receive chemical treatment before. A temporary Modeller was appointed in March 1935 to help in the treatment of pottery, stone and other small objects. The total number of objects treated in the Museum Laboratory during the year is:—

Stone, pottery and metal objects from South Baluchistan	5.121
Stone, pottery and metal objects from North Baluchistan	327
Stone, pottery and metal objects from Sind and other places . . .	178

Experiments on the preservation of wooden objects from Lou-Lan and Astāna graves by fumigation with carbon disulphide and other insecticides were carried out during the year. In addition to the collections from Baluchistan and Sind, a copper coin of Śiva and bull type of the time of Cadphises II from Charsadda belonging to Dr. Simone Corbiau of Belgium, five copper coins of Muhammadan period, a bronze figure of a dancing girl and one of a flying dove, excavated by Dr. Mackay were treated in the Museum Laboratory.

Four large silk paintings from Tun-huang were mounted during the year. They are—

1. Ch. 0029; Silk painting representing Thousand-armed Avalokitesvara. 1′-8″×1′-4″.
2. Ch. 0028: Silk painting representing Avalokitesvara. 1′-6″×1′.
3. Ch. 0067: Silk painting representing Amitābha between Bodhisattvas.

4. Ch. 00104 Remains of a large silk painting representing the Paradise of Amitābha.

The wooden documents written in Kharosthi script from Niya and other sites stored in the Museum were removed to the Museum Annexe on the first floor of the Imperial Record Department building. These valuable documents are written in carbon ink and are liable to be affected by the damp atmosphere of the main building and it was therefore considered necessary to remove them to a comparatively drier place.

All the wooden racks filled with trays containing antiquities from various sources in the reserve collection have been straightened by nailing hoop iron bands diagonally across the backs and sides to prevent them from getting out of the straight.

Improvements in the galleries.

The insufficiency of the supply of air to the frescoes set against the walls was long realised and at the suggestion of the Archæological Chemist in India, rectangular wooden slabs fitted with thin wire gauze were fitted at the bottom of the cases and on the top of each case a small hole was bored so as to admit free circulation of air and drive out the damp stagnant air, fraught with danger.

The lighting arrangement in the galleries has not been quite satisfactory and a number of visitors have complained about the inadequacy. Some improvement has been effected by the installation of more powerful lamps.

The old cardboard labels on the large silk paintings hung on the walls of the galleries of the Museum Annexe are being replaced gradually by painted wooden labels.

The new gallery in the long corridor in the Museum Annexe which was fitted last year with twelve show-cases has now been thrown open to the public. The exhibits in this gallery contain selected specimens from Baluchistan antiquities brought by Sir Aurel Stein from his archæological tours during 1927-28, antiquities from Nāl excavated by Mr. Hargreaves in 1925 and from various sites in Sind explored by Mr. N. G. Majumdar during the years 1929-30 and 1930-31. The exhibits from Sind have been arranged according to sites and each site is well represented in the gallery.

For the exhibition of minor miscellaneous antiquities from Central Asia additional space has been found by the erection of a show-case round the central column in the room in the Annexe devoted to this.

In addition to the exhibits in this gallery, a large number of antiquities from Central Asia are at present stored in the Clerk's room in the Museum Annexe for want of exhibition space. The room set apart for the Curator as his office in the Annexe building has been resumed as an exhibition gallery and, fitted with show-cases will soon be thrown open to the public.

Loan of exhibits.

At the request of the High Commissioner for India, London, 35 exhibits were sent on loan to the Royal Academy of Arts, London, for the International

Exhibition of Chinese Arts, during the year. These included 10 silk paintings, 17 textiles, 4 paper drawings and 4 stucco objects from Central Asian sites. They have now been safely received back in the Museum.

DELHI FORT MUSEUM.

By Khan Bahadur Maulvi Zafar Hasan.

The work of mounting paintings was taken up again this year by the Archæological Chemist, and 68 of them were treated this year. The pictures were systematically arranged in the picture gallery each provided with a descriptive label. Two new table show-cases were supplied to accommodate selected antiquities discovered at the excavations at Bijay Mandal and Qila Rai Pithora in Delhi. The new additions received during the year consisted of 5 miscellaneous articles and 60 coins. The latter, which included 58 silver rupees and 2 copper pice, consisted entirely of Treasure Trove finds received from various Provincial Governments. Among the miscellaneous articles may be mentioned two Sanads issued by the Mughal Emperors Muhammad Shah and Ahmad Shah respectively and an album containing 32 pictures of British officers who were taken prisoners at Kabul during the Afghan War of 1841.

TAXILA MUSEUM.

By Mr. M. N. Datta-Gupta.

During the year under review the number of visitors to the Taxila Museum was 7,020 including 817 children and 324 students and of those to the Archæological excavations 4,244 including 368 children and 294 students.

The total amount of receipts credited to the Treasury during the year was Rs. 1,527-9 of which admission tickets to the Museum and excavated sites yielded Rs. 806-3 and Rs. 489-2 respectively and the sale of photographs brought Rs. 93-4. The balance represents 11 copies of Sir John Marshall's Guide to Taxila and 106 of its Urdu translation. Antiquities added to the Museum collection during the year totalled 906 as follows :—

1. Metal antiquities	22
2. Stone objects	17
3. Terracotta and pottery	269
4. Stucco heads	2
5. Shell and bone objects	23
6. Beads and gems	18
7. Glass and Miscellaneous	12
8. Copper coins	543
	906

Of the last, only 12 coins (2 of Azes II, one of Huvishka, 6 of Vāsudeva and 3 illegible) represent individual finds, while a hoard of 531 coins was found inside a broken earthen pot, and, with the exception of a single coin of Kanishka, is attributable entirely to Vāsudeva.

During the year the permanent numbering of the antiquities exhibited in the Museum was brought to completion. In addition a few descriptive labels were printed in gold leaf.

Certain interesting sculptures and antiquities from the site of Kalawan were exhibited in a new wall case with four rows of glass shelves at a cost of Rs. 910. The only improvement effected in the building, was the water-proofing treatment of the roof of the back rooms and the porches, which was successful.

The photographs and plans exhibited in the Library room for the visitors have been provided with titles and supplied with cut card-board mounts. A good headway has been made in the work of listing the spare antiquities lying in the godown. About 380 drawings of selected specimens of terracottas, relic caskets, finger rings, stone, bone, shell, glass, silver, and other miscellaneous objects were prepared by the Draftsman in connection with Sir John Marshall's forthcoming Monograph on Taxila.

LAHORE FORT MUSEUM.

By Mr. M. H. Kuraishi.

No addition was made to the exhibits in the Lahore Fort Museum.

The sale of photographs of buildings in the Lahore Fort kept in the Museum brought in an income of Rs. 16.

HARAPPĀ MUSEUM.

Over 900 visitors saw the Harappā Museum during the year, the amount of fees collected being Rs. 90-11. 443 antiquities from the excavations were added to the collection. About 100 metal and other antiquities were sent to the Archæological Chemist for special treatment. The total number of antiquities now exceeds 25,000 and steps have been taken to prepare a comprehensive list, with a view to facilitate the work of distribution among different Museums in accordance with a scheme sanctioned by Government.

NĀLANDA MUSEUM.

By Mr. G. C. Chandra.

The extraordinary collection of antiquities made from Monastery No. 9 during the year 1932-33[1], which had been sent to the Archæological Chemist in India for treatment, were received back in the Museum during the year under review. Most of the bronze images were then described without illustrations; the details have been now brought out by chemical treatment. Six bronze

[1] Cf. A. R., A. S., for 1930-34, p. 274 ff.

images and an inscribed bronze pedestal having nine brackets of lotus stalks fixed on it. deserve special mention. The three standing bronze images of Buddha (hts. 22¼". 20¼" and 14¾"), one in *varadamudrā* and two in *abhayamudrā* are among the best specimens of Pāla Art of the 8th-9th Century A.D. (Plate XXXVII, *b* and *c*) and they compare favourably with similar other bronze images recovered from Kurkihar in the Gaya District and at present exhibited in the Patna Museum. The method of holding the *saṅghāṭi* (upper garment), the pose of the body and the position of the right hand of each of the two figures in *abhaya-mudrā* indicate a marked difference in their modelling and finish from the Kurkihar specimens. There is another charming bronze image of Tārā (ht. 10¼") without any Dhyāni Buddha on her head, exhibiting the superb modelling and perfect finishing made at Nalanda during the 7th Century A.D. (Plate XXXVII. *a*). She is peaceful and stands in *varadamudrā* offering a fruit (probably pomegranate) in her right hand. The *saṅghāṭi* is seen gathered and tucked on her left shoulder leaving the breast uncovered. This feature seems to have been purposely adopted by the craftsman to indicate her unmindfulness about the world, while engrossed in her meditation. The roll of palm-leaf or birch-bark (*bhūrja-patra*) inserted in the loop of her right ear-lobe also indicates that she is keeping *mantras* (germ-syllables) in her ear so that they might resound there in her meditation. The left hand of the figure is unfortunately damaged. Of the Bodhisattva images two are repeated here. One gilt bronze image of a four-headed and two-armed Vajrapāṇi (ht. 9½") is seated cross-legged on a high pedestal bedecked with four Ceylon rubies (Plate XXXVII, *f*). Another four-headed and eight-armed bronze image of Trailokyavijaya (ht. 8") is illustrated on Plate XXXVII, *d*. The nine lotus-stalk brackets over the inscribed bronze pedestal referred to above served the purpose of seats (*āsanas*) of Buddha in different attitudes. One small seated image of Buddha in *bhūmisparśamudrā*, having a groove below the lotus seat, found during the same year. exactly fits on to the tenon of one of the brackets (Plate XXXVII, *a*).

MUSEUMS IN BURMA.

By M. Chas. Duroiselle.

Three bronze images of the Buddha, of which one was inscribed in Burmese on the back of its throne, and one bronze figure of a Buddhist monk and a bronze mould for making Buddha images were discovered in clearing the *débris* on an upper terrace of the Dhammayangyi Temple at Pagan during the year, and they have been preserved in the Pagan Museum. No fresh acquisitions were made for the other Museums in charge of the Superintendent, Archæological Survey, Burma.

SECTION V.

OFFICER ON SPECIAL DUTY.

(1) Sir John Marshall's special duty was on grounds of health suspended temporarily at his own request from 1st January 1935 and he was allowed to resume it again in Europe on the 1st October 1935. The special duty terminated on the 30th September 1936. During this period of duty he was wholly engaged in writing his Monograph on Taxila including a Catalogue of Antiquities in the Taxila Museum. Besides, he has been engaged in correcting proofs of his Sanchi Monograph and seeing through the press his Guide books to Sanchi and Taxila. He also did certain preliminary editing of Mr. M. S. Vats' Monograph on Harappā, which the latter is now recasting in accordance with his instructions.

(2) Dr. C. L. Fabri was appointed Officer on Special Duty with effect from the 2nd January 1935 for six months in the first instance, but later the appointment was extended to the 2nd October 1935. During this period Dr. Fabri edited and saw through the press the consolidated edition of the Annual Reports of the Archæological Survey of India for the years 1930-31 to 1933-34 in two volumes.

He was again appointed as Officer on Special Duty with effect from 4th November 1935 for four months. Later his employment was extended by a fresh term up to 10th June 1936, from which date he was granted ten days earned leave. During his eight months employment Dr. Fabri worked out a scheme of distribution of all the antiquities discovered at Mohenjodaro, separating those required for the Local Museum and making suitable shares for the different Museums in India.

SECTION VI.

ARCHÆOLOGICAL CHEMIST.

By Khan Bahadur Mohammad Sana Ullah.

During this year the antiquities, which had to be sent to the Archæological Chemist's laboratory for preservative treatment, amounted to 1,127. Most of these had been discovered in the excavations at Chanhu-daro, Nalanda and Harappa, and comprised objects of iron, copper, bronze, silver, steatite or faience seals. The work on the preservation and mounting of the Mughal paintings in the Fort Museum, Delhi, has also been finished, the remaining lot of 65 pictures having been treated this year. Incidentally, the whole collection has been re-arranged under various schools and periods, as far as possible.

In addition to the work noted above about 50 specimens were received by the Archæological Chemist for chemical analysis or examination. Out of these the analyses of several metallic objects from Taxila, which are given in the accompanying table, deserve special mention here. These were carried out as a part of Mr. Sana Ullah's contribution on Copper and its Alloys from Taxila for Sir John Marshall's forthcoming memoir on his excavations at this famous site. The metallic objects discovered at Taxila and their analyses throw abundant light on the state of metallurgy and metal industry in N. W. India, during the period of a millenium, from the 6th Century B.C. to 5th Century A.D. The composition of soft copper (Nos. 1-7) which was employed for hammered work, shows that the metal was generally of great purity, sometimes reaching 99·7 per cent. The analyses Nos. 11-19 show that bronze containing 21-25 per cent. tin was preferred for casting domestic utensils and other articles. This was due obviously to its easy fusibility; as bronze containing 8-12 per cent. tin which possesses much greater strength but higher melting point, was employed to a much less extent. Casting in ordinary closed moulds or by *cire perdue* process, was extensively practised. Specimens Nos. 20-32 probably represent cheap trade goods which have been cast out of scrap metal alloyed with lead, as at the present day.

Brass appears to have been introduced in North India quite early probably through trade relations with China, but later on this alloy was undoubtedly manufactured in India also, by heating copper with calamine and carbonaceous matter.[1] The early specimens (Nos. 28 and 29) with irregular composition were probably made by the smelting of mixed ores of copper and zinc, such as exist in China and Sikkim. The later objects, Nos. 31 and 32, having regular composition (13 per cent. zinc) were probably manufactured by the calamine method.

The analyses Nos. 28 and 29 show that a white alloy of nickel and copper was also in use for coinage, jewellery and fancy goods. It is identical with the old

[1] There is a recipe in *Rasaratnākar* (a Sanskrit alchemical work of 7th Century A.D. ascribed to Nagarjuna) for the preparation of brass by heating copper, calamine and organic matter in covered crucibles.

Chinese alloy, *pai-t'ung*, meaning white copper, which was prepared by the smelting of the mixed ores of copper and nickel such as exist in the province of Honan. Like brass, this was also introduced in India quite early but it appears to have fallen into disuse after the 1st Century B.C. It may be mentioned in passing that the coins of Euthydemos are composed of this alloy. The last two specimens represent solders which were recovered from some of the copper and bronze vessels found at Taxila. Their analyses show that lead and its alloy with tin in equal proportion, were used there for ordinary soldering.

The discoveries at Taxila leave no doubt that metal industry flourished in India in the 1st Millenium B.C. and that metallurgical skill had attained a high level during this epoch. These facts find corroboration also from the large heaps of slag and extensive remains of ancient workings at the copper mines in various parts of India. However, there is an interesting point relating to the sources of Indian copper which may be mentioned here. There is a certain amount of evidence in the later Sanskrit works which shows that some of the copper was imported from '*Malechcha*' a foreign land.[1] It can hardly be doubted that this place is identical with the '*Maluchcha*' or '*Meluhha*' whence the Sumerians also obtained copper for their own use. *Maluchcha* has been identified with Ethiopia, Sinai, etc.

In connection with the problem of the conservation of the rock-cut temples in the island of Elephanta near Bombay, which has been engaging the special attention of the Department for some time, the Archæological Chemist was deputed there in January in order to supervise the repairs of certain cracks in the sculptures, which were carried out actually by Mr. Abdul Aziz, Modeller of the Frontier Circle, Lahore. Mr. Sana Ullah availed of this opportunity also to carry out some preliminary experiments with wet paper-pulp for the elimination of salts from the sculptures, as recommended by Sir Alexander Scott of the British Museum Research Laboratory.[2] In one of the trials on a plain wall he found that 4 grms. of the salts containing ·7 grm. chlorine, were extracted per square foot area of the affected surface, by one application of paper-pulp. This corresponds to 1·15 grms. of sodium chloride. The great efficiency of this simple method is clear from these figures. It is, therefore, hoped that after a few applications of paper-pulp the concentration of the sea-salts in the sculptures will be reduced to a trifling amount, thereby endowing them with a fresh lease of long life. This method is also preferable to simple washing with plain water (which is generally recommended for the elimination of salts from monuments) as the progress of the treatment can be judged much better by the chemical examination of the used-up pulp. The paper-pulp method has, therefore, been recommended specially for the treatment of those monuments which are charged with sea-salts, but the matter is under the consideration of the Department.

The Departmental officers and Curators of several museums have sought the expert help of the Archæological Chemist on various matters. Under his

[1] *Amarsingha's* Lexicon (6th Century A.D.) mentions that copper has '*Malechchha-mukhum*' or obtained from *Malechcha* countries. Again in *Rasaratnasamuchchaya* (13th Century A.D.) there is mentioned a variety of copper which is obtained from Malechcha.

[2] The Cleaning and Restoration of Museum Exhibits. p. 16.

directions, the Curator of the Curzon Museum of Archæology, Muttra, has started the treatment of some badly affected sculptures, by the paper-pulp method which is working successfully in his hands. In the Harappa Museum, some of the bronze objects, which were shewing signs of deterioration but were not strong enough to withstand further chemical treatment, have been kept in air-tight glass jars over fresh quicklime. It is satisfactory to note that no further changes have been noticed in these objects after the lapse of over one year.

The Archæological Chemist was asked to give his expert opinion on certain points relating to the question of the transfer of the old Imperial Records from Calcutta to Delhi and their preservation in future. He has pointed out that the warm and damp climate of Calcutta is very injurious to the records while Delhi, with its lower average temperature and drier atmosphere, was a more suitable place for their storage. Moreover, the acidity of the atmosphere of Calcutta, caused by the combustion of coal, will have a very deleterious effect on paper and bindings; but this source of danger is practically absent at Delhi. In support of these views reference has been made to the report on the Deterioration of Paper in India by Sudborough and Mehta,[1] who pointed out that certain books in Bombay, Calcutta and Madras were in far worse condition than the same which were stored in cooler places, in India. It is noteworthy also, that certain journals were in a distinctly better state of preservation at Meerut than in Calcutta. The results of the various investigations on the deterioration of paper in Europe and America also support the above-mentioned views. Certain measures for the preservation of these records in future have been recommended but the most important, which might be of wider interest, are these:—

(a) To install a suitable sterilizing apparatus for the periodical fumigation of the records to destroy insects;
(b) To improve the existing repairing and binding methods on scientific lines;
(c) To introduce a suitable dressing for the preservation of the leather bindings.

Table of Chemical Analyses of Metallic Objects Found at Taxila.

Serial Number.	Period (Century)	Object.	Identification Number.	Copper.	Tin.	Arsenic.	Antimony.	Iron.	Nickel.	Lead.	Zinc.		Total.	Analyst
1	VI-VII Cent. B. C.	Flat Bar . .	Bm '30 1087 .	97·78	..	..	..	1·70	..	..	..	..	99·57	S
2	IV Cent. B. C.	Rod .	Bm '20-302 .	98·33	0·10	0·10	0·35	0·45	0·51	tr.	..	..	100·02	S
3	III Cent. B. C.	Ear Cleaner .	Bm '19-275 .	97·11	..	0·25	0·99	0·70	0·29	0·20	..	S=0·46	100·00	H*
4	I Cent. B. C.	Plate . .	Sk '14-1770	98·93	..	tr.	0·16	0·17	0·52	..	..	S=0·22	100·00	H*
5	I Cent. A. D.	Sheet . .	Sk '20 2194 .	98·13	..	0·23	0·59	0·24	0·30	..	..	S=0·51	100·00	H*

NOTE.—S=Mohd. Sana Ullah. H=Dr. M. A. Hamid.
* Reported in A. S. A. R. 1931-32.

[1] J. Ind. Inst. of Science, Vol. 3, 1920-21.

Table of Chemical Analyses of Metallic Objects Found at Taxila.

Serial Number.	Period (Century)	Object	Identification Number	Copper	Tin	Arsenic	Antimony	Iron	Nickel	Lead	Zinc		Total	Analyst
6	I Cent A D	Ladle . .	Sk '30 337 .	99 10	.	0 02	0 16	0 44	0 12	.	.	S present	99 84	S
7	,,	Pan . .	Sk '28-1307/c .	99 68	0 11	tr	..	0 09	0 11			..	99 99	S
8	,,	Spout of a Pot	Sk '16-252 .	77 45	0 74	0 24	..	0 56	0 43	18 65	tr	Ag=tr	98 07	S
9	IV Cent B C	Rod . .	Bm '19 558 .	87 24	8 28	0 55	0 46	1 23	0 91	0 94	.	S=0 39	100 00	H*
10	I Cent A D.	Ram-headed Handle of Pan	Sk '33-143 .	87 15	11 66	?	?	0 88		0 31	tr	..	100 00	S
11	III Cent B C	Round Bowl	Bm '30 916 .	76 76	21 55	0 16	.	0 95	0 48	nil	.	..	99 90	S
12	II Cent B C	Bell . .	Sk '30 216 .	74 80	24 14	0 10	0 20	0 55	0 21	..	.	..	100 00	S
13	I Cent B C	Mirror .	Sk '14-1385 .	74 28	24 85	0 04	0 12	0 71		.	..	Ag=trace	100 00	S
14	I Cent A D.	Dish with central boss	Sk '17-109 .	75 69	22 40	0 06	1 13	0 30	0 34	0 07	0 01	..	100 00	S
15	,,	Mirror . .	Sk '33 143/10 .	74 61	22 00	0 11	1 23	0 71	0 47			Ag=0 87	100 00	S
16	,,	Cup . .	Sk '15-1115 .	75 54	23 20	0 28	0 30	tr.	0 49	..	tr	..	99 81	S*
17	,,	Bowl . .	Sk '22-645/16 .	75 69	23 69	?	?	0 37	0 25	..	tr	..	100 00	S
18	,,	Goblet . .	Sk '1021 .	73 39	25 59	.	0 12	0 71	0 15	0 05	..	..	100 01	S
19	III IV Cent A D	Mixing Pan .	SSk '14-111 .	74 24	24 58	0 18	0 02	0 72	0 26	..	..	..	100 00	S
20	II Cent B C	Handle of Bell	Sk '29 2653 .	85 24	9 70	0 13	0 27	0 48	0 71	3 38	..	..	100 00	S
21	,,	Flask . .	Sk '29 2010/1 .	80 38	7 34	.	?	1 33	0 26	7 78	2 49	..	99 58	S
22	I Cent B C	Stand of Goblet	Sk '29-1855 .	87 42	2 12	0 15	0 06	2 49	0 65	7 06		..	99 95	S
23	I Cent. A D.	Stand of Goblet	Sk '13-1015 .	80 98	15 03	0 10	0 13	0 09	0 27	2 59		S=0 81	100 00	S
24	,,	Lion . .	Sk '20-318 .	83 75	7 34	0 20	..	1 94	0 78	5 42	..	..	99 43	S
25	,,	Cock . .	Sk '30 159 .	83 35	5 62	..	..	0 56	1 00	9 61	..	..	100 14	S
26	,,	Flask . .	Sk '13-A492 .	83 57	4 50	0 20	0 30	1 48	1 51	7 92	0 52	..	100 00	S
27	II-V Cent. A D	Rod . .	Jn '16F, 556 .	76 50	9 39	0 25	..	0 21	0 05	12 71		S=0 89	100 00	S
28	III Cent B C	Vase . .	Bm '15 284 .	55 39	4 25	..	0 26	1 77	0 40	3 08	34 34	..	99 49	S
29	II Cent. B C.	Bangle . .	Sk '29 2681 .	73 72	0 10	..	0·18	0 42	nil	5 84	19 70	..	99 96	S
30	,,	Antimony Flask	Sk '29 2010/1 .	80 38	7 34	..	..	1 33	0 26	7 78	2 49	..	99 58	S
31	I-V Cent A D.	Bangle . .	Dh '30 20 .	76 75	2 58	..	..	..	0 11	6 33	13 07	..	98 84	S
32	,,	Pot . .	Dh '33 273 .	79 19	3 58	tr.	0 10	0 94	0 09	3 22	12 88	..	100 00	S
33	VI VII Cent B C	Antimony Painter.	Bm '21-432 .	87 05	2 01	..	..	0 98	9 02	..	..	Co=0 86	99 92	S
34	III Cent B C	Bangle . .	Bm '14 290 .	78·09	0 64	..	..	1 53	18 88	..	..	Co ? S=0 32	99 46	H*
35	I Cent. B.C.	Plate . .	Sk '14-1746 .	77 45	..	..	0 30	0 68	21 35	..	..	Co=0 52	100 30	S
36	II Cent B C.	Filling (at the bottom of antimony flask).	Sk '20-2010/1 .	0 62	0 20	nil	0 85	0 35	..	97 98	..	..	100 00	S
37	I Cent. A D	Solder . .	Sk '28-1307/c .	3 11	46 13	..	0 37	0 72	..	49 67	tr.	..	100 0	S

NOTE—S=Mohd. Sana Ullah. H=Dr. M. A. Hamid. * Reported in A. S A. R. 1931-32.

SECTION VII.

TREASURE TROVE.

United Provinces.—Fifteen finds of coins from the Districts of Benares, Gorakhpur, Banda, Basti, Unao, Azamgarh, Allahabad, Lucknow and Saharanpur were examined by Rai Bahadur Prayag Dayal, Secretary of the Coin Committe in the United Provinces. The finds comprised 25 gold *mohurs,* 320 silver rupees and 781 copper coins representing the issues of the Kushan rulers, Madana Varma Deva, the Sultans of Delhi, the Mughal Emperors and the Nawabs of Oudh. The coins of Madana Varma Deva, which consisted of small pieces of gold weighing 15 grains each, were deserving of special interest.

Delhi.—Two hoards of silver coins were discovered at Delhi. One contained 10 rupees of the Mughal Emperor Muhammad Shah; and the other 3 issues of Shah Jahan, 13 of Aurangzeb and 6 of Shah Alam Bahadur Shah I.

Punjab and North-West Frontier Province.—One find of 15 silver coins belonging to the Mughal Emperors Shah Jahan, Aurangzeb and Shah Alam I, was reported from Chak No. 87/E. B., Tahsil Pakpattan, District Montgomery by the Honorary Numismatist to the Punjab Government for Muhammadan coins. Among four finds of coins reported by the Honorary Numismatist for Hindu and Buddhist coins to the Punjab Government mention may be made of 2 gold, 3 silver and 14 copper coins and a terracotta disc found in the Sheikhupura District and 2 gold coins of Kanishka recovered from an old Buddhist mound near Sahri Bahlol in the Peshawar District.

Western Circle.—Four stone Jain images unearthed in the course of digging the foundations of a temple at Erandol in East Khandesh District were acquired by the Bombay Government at a cost of Rs. 60 and presented to the Prince of Wales Museum of Western India, Bombay.

Central Circle.—Seven old Badshahi coins were found in the Baijnathpur village in the Santal Parganas District. They were acquired for the Patna Museum Coin Cabinet at a cost of Rs. 9. The Executive Engineer, Drainage Division, reported the discovery from the city of Patna of miscellaneous objects comprising earthen pots, terracotta figurines, sling balls, beads, one crystal relic casket (Ht. $3\frac{1}{4}''$), and 33 various silver punch-marked coins. It has been recommended that these should be made over to the Curator of the Patna Museum. Conch shells numbering 1,065 were discovered near the Arura Stambha of the Jagannath Temple at Puri. They will be acquired under the Treasure Trove Act. A collection of nine cannon was discovered in a field at Mauza Arang near Khurda in the District of Puri and has been presented to the Ravenshaw College Museum. An acquisition notification under the Treasure Trove Act, 1878, was issued in respect of a collection of 71 silver coins of the time of Shāh 'Alam found in a field situated in village Kopa, Pargana Bal in the Saran District. Seven silver pieces weighing over 47 *tolas,* fourteen small pieces of gold weighing over

1 *tola*, three pieces of a silver ring and fragments of copper were discovered in a field of the village Parihar in the Sitamarhi Sub-Division of Muzaffarpur District. The finder was sentenced to one month's imprisonment as he did not deposit the treasure in full.

Eastern Circle.—A stone image of Pārvatī with attendants on either side which was discovered in the village of Dakhin Muhammadpur near Comilla in the District of Tipperah was acquired under the Treasure Trove Act and is now exhibited in the Indian Museum, Calcutta.

Southern Circle.—Treasure trove cases in the Madras Presidency are dealt with by the Superintendent, Government Museum, Madras, and the following information is gathered from his report:—

Two finds of 143 gold coins were reported from the Madras Presidency. These comprise: 1 coin of Francesco Donato, 2 coins of Antonio Trevisan, 1 coin of Francesco Venier, 10 coins of the Vijayanagar dynasty and 93 *fanams* of Viraraya found in Kunnttur village, Erode Taluk in the Coimbatore District; and also 36 *fanams* found in Pudupet village, Chengam Taluk in the North Arcot District. No less than 16 bronze and copper images of Hindu deities were acquired under the Indian Treasure-trove Act.

Burma Circle.—At Myogale in the Pegu District the villagers unearthed a bronze figure of Jambupati, two silver images of the Buddha and a bronze image stand. The Deputy Commissioner of the District sent the articles to the Archæological Superintendent for examination and report. The objects were found together with four stone inscriptions, of which three are dated A.D. 1742, 1749 and 1750, and one has its date effaced. The inscribed slabs have been preserved in the Kalyani inscription shed at Pegu. The circumstances which led to their discovery have been mentioned in the chapter on Epigraphy. Jambupati is the form of Buddha in regal dress (Plate XXXII, *e*) which he assumed in order to check the inordinate pride of king Jambupati who claimed to be a *Chakravartin* or Universal Monarch. He wears a highly ornate *mukuṭa*, long ear-ornaments each formed of a knob and a hook bulbous in the middle, with the lower end resting on either shoulder, a rich breast-plate and wristlets. He is seated cross-legged displaying both soles of the feet in the earth-touching attitude, on a high throne formed of two lotus flowers placed apex to apex and joined in the middle by a filleted band. The fingers, which are faintly delineated, are of equal length, and those of the right hand pointing towards the earth are joined to the top of the lotus seat by a piece of metal; the left hand, which is placed over the lap, palm upwards, is supported by a similar piece. The figure bears traces of gilding. It measures 1′ 5″ in height including the throne which itself is 5″ high. The image does not bear any writing, but judging by its technique it may be assigned to the XVIIth or XVIIIth century, being a good specimen of the work of Gwe Shans, who were numerous in Pegu at that time. It is proposed to acquire it under the provisions of the Treasure Trove Act and deposit it in the Phayre Provincial Museum, Rangoon.

The two silver images of the Buddha are in the round. They represent the Sage seated cross-legged on a high throne in the earth-touching attitude. One

is $4\frac{1}{2}''$ and the other $3''$ in height including the seat. The technique is crude and lacks finish. Their age is probably the same as that of the above-described figure of Jambupati. They are not considered worth acquiring for the Government and will be returned to the finders.

The bronze image stand is rectangular in plan measuring $4'' \times 2\frac{1}{2}''$ at the base, with one end of the longer side being rounded. The base of the stand consists of a small band of fillet, and the sides above it batter, so that the surface of the top of the stand, which is $\frac{1}{2}''$ in height, is rendered narrower and measures $3\frac{1}{2}'' \times 2''$. One half of this surface on the rounded side has a mortice hole $1\frac{1}{2}''$ in diameter, which receives the tenon of the image. The other half is occupied by a square tank measuring $2'' \times 1\frac{1}{2}''$ and $\frac{1}{3}''$ in depth; the bottom is on a level with the surface of the top of the stand. At each corner of the tank is a lotus leaf projecting outward. Inside the tank and at the bottom of it is a tortoise flanked by two fishes. This image stand is of no archæological value and will be returned to the finders.

Rajputana.—The Jodhpur Durbar reported the acquisition of 14 copper coins of Gadhiya, 17 silver coins of Aurangzeb issued from the Ajmer Mint, and 2 silver coins issued from the Kuchaman Mint. The Gadhiya coins were found at Disuri and the rest while digging a ditch in Kuchipala in Jodhpur State.

SECTION VIII—MISCELLANEOUS NOTES.

SIRĪ, A CITY OF DELHI, FOUNDED BY 'ALĀU-D-DĪN KHALJĪ.

By K. B. Maulvi Zafar Hussain.

The ruins of Delhi comprise the sites of several ancient cities which had the distinction of being the seat of Government in their respective times. Each of them had a distinctive name of its own, although ultimately they came to be known by the generic title of Delhi. The area which embraces these sites extends from Shāhjahānābād, the city of Shāhjahān, to Rāipithūrā's city, which is known as Old Delhi and is marked by the celebrated Quṭb Mīnār. Popular tradition enumerates only seven cities of Delhi which rose into importance, but if we take into account also the smaller towns and strong-holds, that sprang up in that locality, the total number grows to fifteen. *Khulāṣat-ut-Tawārīkh* notices all these cities with details, and the list given below is quoted from that work.[1]

(1) Indraprastha, the legendary city of the Pāṇḍavas, now supposed to be identical with the Purāna Qila'.

(2) Delhi (really Dehli) founded by Rāja Anang Pāl Tanwar (Skt. Tomara) about the year 1060 A.D. It is represented by its citadel Lāl Koṭ, in the centre of which stands the Quṭb Mīnār.

(3) The city of Rāipithūrā or Old Delhi founded by Rāi Pithūrā (Pṛithvī Rāja), the last Hindu king of Delhi, about the year 1186 A.D. It embraces within its area the Lāl Koṭ (item 2).

(4) Marzghan, a fortress, built by Quṭb-ud-Dīn Aibak and Iltutmish (1205-1235 A.D.). The site of this is not traceable.

(5) Kilokhrī founded by Mu'izzu-d-Dīn Kaiqubād on the bank of the river Jumna about the year 1287 A.D. Its site is marked by a village bearing the same name and lying about two miles to the south of Humāyūn's tomb.

(6) Kushak-i-Lāl founded by Jalālu-d-Dīn khaljī (1290-1295 A.D.). The site of this is not known.

(7) Sirī founded by 'Alāu-d-Dīn Khaljī about the year 1304 A.D.

(8) Tughlaqābād founded by Ghayāthu-d-Dīn Tughlaq about the year 1322 A.D.

(9) Jahānpanāh. Muhammad Shāh Tughlaq connected Old Delhi (item 3) and Sirī (item 7) with walls about the year 1327 A.D., and the space thus enclosed was given the name Jahānpanāh.

(10) Fīrozābād founded by Fīroz Shāh Tughlaq about the year 1354 A.D. on the bank of the Jumna, and its site is marked by Koṭla Fīroz Shāh immediately to the south of Shāhjahānābād, modern Delhi.

[1] *Khulāṣat-ut-Tawārīkh* by Sujān Rāi Bhandārī of Batāla, Persian text, published by the writer of this article in the year 1918. pp. 28-29. See also *Elliot's History of India*, Vol. VIII, pp. 11-12.

(11) Mubārakābād founded by the Saiyyid King Mubārak Shāh (1421-1433). Its site is identified by Mubārakpur Koṭla about 2 miles to the south-east of Ṣafdar Jang's tomb.

(12) Dīn Panāh founded by Humāyūn between the year 1530 and 1540 A.D. with Purāna Qila' for its citadel.

(13) Shergaṛh or Sher Shāh's Delhi. Sher Shāh on his accession to the throne in the year 1540 made additions to the Purāna Qila' and founded a city which extended from that fort to Koṭla Fīroz Shāh as marked by its north and south gateways. The site of it is now partly occupied by New Delhi.

(14) Salīmgaṛh, a fortress, constructed by Islām Shāh Sūr (1545-1552). It is marked by its remains immediately to the north of the Delhi Fort.

(15) Shāhjahānābād founded by Shāhjahān on the bank of the Jumna in the year 1639 A.D. It is represented by modern Delhi.

Sirī, which forms the subject of this article, was founded, as already stated, by 'Alāu-d-Dīn Khaljī about the year 1304 A.D. Its ruined site lies about 3 miles to the north-east of the Quṭb Mīnār, and is approached by a cart track which branches off the Delhi-Quṭb Road at the 9th mile from Delhi. The area which was once occupied by a populous city containing superb royal palaces and other magnificent buildings, busy markets and streets, and innumerable private dwelling houses is now covered by cultivated fields and a group of squalid huts of a modern village, named Shāhpurjaṭ. In the midst of fields are, however, to be seen insignificant remains of a few ancient structures, while an old *Barādarī* standing in the heart of the village is used for residence by villagers. The city was oval in shape (Plate XXXVIII, *a*), and it was surrounded by a wall which had a perimeter of more than three miles and was provided with all the military contrivances of defence known to mediæval world. Constructed of rubble stone in lime, this city wall was battlemented and pierced with arrow slits, and was furnished with fortified bastions and gateways. Like other buildings in the locality, it has also disappeared, and except for a few of its crumbling pieces or the remains of a bastion (Plate XXXVIII, *b*) and a gate on the south, it is marked only by heaps of débris. A short length of the west wall (Plate XXXVIII, *c*) is in a comparatively better state, and an examination of it gives an idea of its fortifications. It is provided with a *chemin-de-ronde* 9′ 2″ wide, protected by a wall. The latter has in its turn a ledge 3′ 0″ wide, wherefrom springs a parapet which was originally crowned with battlements now disappeared. Four rows of arrow slits pierce the wall at regular intervals; two for use from the *chemin-de-ronde* for long and short ranges respectively, and the remaining two to be used similarly from the ledge in the screen wall. The present height of this piece of wall is 33′ 9″, but including the embattled parapet, which has disappeared, it must have been originally not less than 46′ 0″ high (Plate XXXIX). Inside, where the ground level is raised, its existing height is 26′ 6″, with the detail that the *chemin-de-ronde* is 13′ 6″ high from the ground level and the ledge in the screen wall 11′ 0″ from the *chemin-de-ronde* while the broken parapet,

which is short of battlements, has a maximum height of 2′ 0″. Fortunately, the battlements exist on the bastion, where they measure as high as 14′ 3″ including the parapet. The wall has also a batter, a feature more prominently noticed in the later buildings of the Tughlaq period, and consequently its thickness varies at the ground and *chemin-de-ronde* levels, being 21′ 6″ and 18′ 2″ respectively. At present it is hollow, with a passage about 6′ 0″ wide and 13′ 0″ high running through its thickness. Locally it is believed that the passage ran throughout the whole length of the wall, and that it was intended for storing therein grain and fodder for use at the time of siege. This view is, however, contradicted by the fact that, unlike the exterior, the masonry of the passage inside is rough and uneven without any trace of smooth facing, and it seems that the inner core of the wall consisted of loose rubble which disappearing has left an open space like a passage. It may be remarked that the ruined wall of Sirī has been declared protected under the Ancient Monuments Preservation Act, and the Archæological Department has adopted requisite measures for the conservation of its fragmentary remains to arrest their further decay.

Sir Saiyid Aḥmad Khān, the author of the *Athāruṣ Ṣanādīd*,[1] says that originally Sirī was the name of a village, which occupied the site where 'Alāu-d-Dīn Khaljī founded his city, and it was from that village that the latter took its name. A mention of Sirī is also made by Amīr Khuṣro in his *Qirānu-s-Sa'dain*,[2] which was written about the year 1298 A.D. and contains an account of the meeting of Kaiqubād, the last emperor of the Slave dynasty, with his father Nāṣir-ud-Dīn Baghrā Khān, the Sultān of Bengal. It is therefore evident that the area, which was selected by 'Alāu-d-Dīn Khaljī for his city, was long before known by the name of Sirī which may be connected with the Śanskrit name Srī the goddess of wealth and prosperity. Lying outside Old Delhi or the city of Rāi Pithūrā, the plain of Sirī possessed great strategical importance. The armies conducting operations of attack or defence to that town used to encamp there, and it was in the same connection that 'Alāu-d-Dīn conceived the idea of erecting a fortified city on that site, and subsequently made it his capital. During the middle ages, India, like other Asiatic countries, was subjected to the inroads of the Mongols, against whom the choicest Indian forces had to be posted at the north-west frontiers. More than once those invaders penetrated as far as Delhi, ravaging and plundering the country which lay in their course.[3] In the year 1303 A.D. when 'Alāu-d-Dīn Khaljī was engaged in the siege of Chittor and his other forces were despatched against Wārangal in the south, a Mongol chief, named Targhī, attacked India with 120,000 horse and, marching with all speed to Delhi, encamped on the bank of the Jumna.[4] 'Alāu-d-Dīn hastened back to Delhi, but most of his soldiers were absent from the capital, and those who had returned with him from Chittor were much wearied and dispirited. He came out of Old Delhi with

[1] *Athāru-s-Ṣanādīd* by Sir Sayyid Aḥmad Khān, Nāmī Press, Cawnpore, 1904, p. 18.

[2] *Qirānu-s-Sa'dain* by Amīr Khuṣro, Persian text, Institute Press, Aligarh, 1918, pp. 51-2.

[3] *Tārīkh-i-Fīroz Shāhī* by Ziyā-ud-Dīn Barnī, Persian text, published by the Asiatic Society of Bengal, Calcutta, 1862, pp. 254 *et. seq.* and 300 *et. seq.*

[4] *Tārīkh-i-Fīroz Shāhī* by Ẓiyā-ud-Dīn Barnī, Persian text, published by the Asiatic Society of Bengal, Calcutta, 1862, pp. 300 *et. seq.*

as much army as he could gather and encamped at Sirī, where the superior number and strength of the enemy compelled him to entrench his camp. The Indian forces were thus besieged, and although the Mongols could not get an opportunity to make an onslaught and overpower them, the people of Delhi suffered greatly for want of provision, etc. The siege, however, did not last long, and the Mongols returned after two months to their country. The event had a great effect on 'Alāu-d-Dīn, who gave up his plans of further conquests and started in right earnest to strengthen his empire against such incidents. He founded a city at Sirī and erected there a palace, which on account of a large number of pillars it contained, was given the name of Qaṣr-i-Hazār Sutūn.[1] He took his residence in that palace, and Sirī, which rose to the dignity of capital, became a populous and flourishing city.[2] The successors of 'Alāu-d-Dīn also stayed at the new capital, but they were weak rulers and fell victims to court intrigues, which brought the Khaljī dynasty to an end with the murder of Quṭb-ud-Dīn Mubārak Shāh by his treacherous slave, Khuṣro Khān, at the Qaṣr-i-Hazār Sutūn. The rulers of the Tughlaq dynasty, who succeeded the Khaljīs, founded their own cities and embellished them with splendid palaces and buildings. The ruins of Bijaimanḍal inside Jahānpanāh represents the palace of Muḥammad Shāh Tughlaq, who constructed near it another Qaṣr-i-Hazār Sutūn, the remains of which have been recently brought to light by excavations carried out by the Archæological Department. Although Sirī lost its position as capital, it continued to be inhabited long afterwards and retain the title of Dāru-l-Khilāfa (Seat of Government). Like Old Delhi and Jahānpanāh, it was plundered by the army of Tīmūr, when some of its buildings are related to have been destroyed.[3] Tīmūr also visited it, and he states that Sirī had seven gates, 3 of which were towards Jahānpanāh and four faced the open country.[4] During the civil war at the downfall of the Tughlaq rule its fortified position offered a place of refuge to refractory chiefs and rival princes, and it became the scene of military actions more than once.[5] In the subsequent reigns of Saiyid and Lodī kings little is heard about Sirī, till Sher Shāh on his accession to the throne destroyed it to obtain building material for the construction of his own city.[6] This action of that Emperor was responsible for the desolation of this imperial city, and it also accounts for the disappearance of its buildings including the fortified wall.

The Qaṣr-i-Hazār Sutūn, which had been the most important palace in Sirī, met with the same fate as other buildings in that locality at the hands of Sher Shāh, and its destruction was so complete that not even the site is now traceable. Unfortunately, its description is also not preserved in any contemporary historical work. Casual references to it are, however, to be noticed in connection with the events that took place there, and from their account it is inferred that it was a

[1] *Tārīkh-i-Farishta*, Persian text, Nawal Kishore Press, Lucknow, 1905, part I, p. 112.

[2] *Tārīkh-i-Fīroz Shāhī*, p. 302.

[3] *Elliot's History of India*, Vol. III, p. 503.

[4] *Elliot's History of India*, Vol. III, pp. 447-48.

[5] *Tārīkh-i-Farishta*, Persian text, part I, pp. 159-61.

[6] *Āīn-i-Akbarī*, English translation by Jarret, Vol. II, p. 279; *Khulāṣat-ut-Tawārīkh*, Persian text, p. 29; *Elliot's History of India*, Vol. IV, p. 477.

majestic building more than one storey high. A few of those historical events are related below :—

(a) In the year 705 A.H. (1305-6 A.D.) Ghāzī Malik defeated the Mongols on the bank of the Indus, slaughtered a large number of them and made prisoner three or four hundred souls with their chief, named Gang. The prisoners were sent to 'Alāu-d-Dīn Khaljī, who got them trampled to death by elephants near Qaṣr-i-Hazār Sutūn.[1]

(b) In the year 711 A.H. (1311-12 A.D.) when Malik Kāfūr returned from the south, the prodigious booty, which he brought with him and which consisted of 112 elephants, 20,000 horses, 96 maunds of gold and several boxes of jewels, was laid before the king in front of the Qaṣr-i-Hazār Sutūn.[2]

(c) On the death of 'Alāu-d-Dīn Khaljī his eunuch slave Malik Kāfūr, who held the high post of prime minister, raised the youngest prince Shihāb-ud-Dīn 'Umar, a boy of six or seven years, to the throne. *Darbārs* of the boy king used to be held on the upper storey of the Hazār Sutūn, while tents were erected on its terrace for Malik Kāfūr, who passed his time in enjoyment there after the *Darbārs* were over. One night the band of Nāiks, who had the duty to guard the royal palace, rose against Malik Kāfūr and killed him with all his companions in the tents.[3]

(d) Quṭb-ud-Dīn Mubārak Shāh, who ascended the throne after the assassination of Malik Kāfūr, was also murdered on the upper storey of the Hazār Sutūn. A very graphic account of this event has been given by Barnī. He says that the king had given himself up to debauchery and other disgraceful vices, which led his favourite slave Khuṣro Khān to conceive an ambitious scheme of assassinating him and securing the throne for himself. To accomplish that object he invited from Gujrāt a large number of his relations and men belonging to his tribe. One night when Khuṣro Khān had been with the king in the royal sleeping chamber, the conspirators entered the Hazār Sutūn and massacred the guards on duty. Hearing the noise, the king made enquiries of Khuṣro Khān, who went to the terrace and returning informed the former that some of the royal horses had broken loose, and that people were endeavouring to secure them. Soon after, the assassins ascended the terrace and put to the sword the guards of the private chambers. The king now realized the situation and attempted to fly for refuge to the harem. Khuṣro Khān fearing that the king might escape rushed after him and seized him by the hair. In the scuffle that ensued the king threw Khuṣro Khān down to the ground, but he could not release himself until the conspirators arrived at the scene, murdered

[1] *Tārīkh-i-Farishta*, Persian text, part I, p. 116.
[2] *Tārīkh-i-Farishta*, Persian text, part I, p. 120.
[3] *Tārīkh-i-Fīroz Shāhī*, pp. 372-376; *Tārīkh-i-Farishta*, Persian text, part I, pp. 123-124.

> the king and cutting off his head threw it into the courtyard. They then plundered the harem and assassinated the princes of the royal blood. Next day the traitor K͟husro K͟hān ascended the throne assuming the title of Nāṣiru-d-Dīn K͟husro S͟hāh, but he could not enjoy the fruits of his perfidy long. A few months after, G͟hāzi Malik marched an army against him from Dīpālpūr, and arresting him after a battle at the plains of Indarpat (neighbourhood of Purāna Qila') put him to death. After his victory over K͟huṣro S͟hāh, G͟hāzī Malik visited the Hazār Sutūn and bewailed the miserable fate of Mubārak S͟hāh and his family. As none of the male members of the royal K͟haljī line had survived, he was elected king in the same palace.[1]

From the account related above it is inferred that Qaṣr-i-Hazār Sutūn was a double storeyed building, of which the upper floor contained royal private chambers together with a vast open terrace where tents could be erected. The lower storey seems to have been used for state purposes to hold *Darbārs* for public audience. A big and spacious courtyard was attached to it, where royal horses were stabled and foot and mounted guards were posted for the protection of the palace. The Imperial harem or female apartment was also attached to it, and there was an open ground in front of it where state functions were held. The principal buildings of 'Alāu-d-Dīn K͟haljī handed down to us at Delhi, *viz.*, the 'Alāī Gate of Qūwat-ul-Islām Mosque (Quṭb Mosque) and the Jamā'at K͟hāna at Niẓām-ud-Dīn stand as a landmark in the history of the development of Muslim architecture in India, showing the great aptitude of that monarch for the art of building and his fine taste in mural decoration. They are constructed of red sandstone, and the 'Alāī Gate is richly ornamented with carving having also marble sparingly used in it. The Qaṣr-i-Hazār Sutūn, which was the imperial palace constructed in the new capital, is expected to have surpassed all the other buildings of 'Alāu-d-Dīn in magnificence and richness of material and details, and as such it should have formed an excellent specimen of architecture of the period. Unfortunately, this noble edifice is lost to the world, its total destruction rendering it difficult to locate even its site with any amount of certainty. General Cunningham places it in the western half of Sirī, where he says the remains of a large palace and other buildings still exist.[2] His observation goes back so far as 1862-63, and it cannot be ascertained as to which particular remains have been referred to by him as belonging to Qaṣr-i-Hazār Sutūn. Except a ruined mosque and a small dilapidated structure no remains of any palatial building are to be found in that locality, unless General Cunningham identifies that palace with the *Barādarī* which stands in the centre of the village. This *Barādarī* is constructed of rubble masonry and consists of a central hall flanked by a chamber on the north and south. The hall, which has three arched openings to the east, is three bays deep, and is thus divided into nine compartments by archways which

[1] *Tārīk͟h-i-Fīroz S͟hāhī*, p. 401 *et seq.*

[2] *Archæological Survey of India Report* by Major-General A. Cunningham, Vol. I, p. 209.

are supported on low columns of local quartzite. The building, devoid of any ornamentation and possessing no architectural importance, can on no account be given the credit of representing the celebrated Qaṣr-i-Hazār Sutūn.

Mr. Beglar locates this palace outside Sirī, and expresses his opinion that 'Alāu-d-Dīn's tomb ought to be in it instead of at Quṭb.[1] He quotes no authority in support of his views, which are not convincing and are at the same time contradicted by ancient historical records. From the strategical consideration the north-east portion of Sirī seems to have been the most suitable place for a royal palace, and it is not improbable that Qaṣr-i-Hazār Sutūn might have been erected there. Rising high above the adjoining area, the spot has a commanding position, and is bounded on the north-east by an old *nāla* which served a natural ditch for the purposes of defence. Huge heaps of débris are also to be found there lying along the ruins of the city wall, and at a short distance stands a high mound of earth signifying the remains of a big ancient structure. No ornamental pieces of red sandstone or marble are traceable there, but the expectations to come across such an evidence will be contradictory to the historical statement that the buildings of Sirī were demolished to supply material to Sher Shāh's city.[2] If that information is correct, and there is no reason to think it otherwise, all the structural members of Qaṣr-i-Hazār Sutūn, after its demolition, should have been carefully removed from its site for re-use in the construction of the buildings of Sher Shāh. The foundations of the palace should, however, be *in situ* and a few trial pits can settle the question whether it really stood there.

A BUDDHIST SCULPTURAL MOTIF AT HAMPI.

By C. R. Krishnamacharlu, B.A., Madras.

In the Archæological Survey Report for 1921-22 (p. 144), M. Duroiselle deals with the origin and representation of the Goddess 'Vasundharā', called in Burmese 'Wathundaye', the Earth-Goddess of the Buddhists. References to the deity in Pāli and Sanskrit works bearing on Buddhism or Life of Buddha are fully discussed by him and he still leaves the question of the origin of the conception of 'Vasundharā' unsettled and unsolved. But he refers to representations of the Goddess found at Angkor Vat and Vat-Nokor in Cambodia, and at Vesali in Arakan. The chief characteristic of the Goddess depicted in these figures is that she "is wringing her hair". According to M. Duroiselle, in Burma, where she is very popular her representations may be seen in practically every pagoda and the episode in which she figures is found painted on the walls of many temples. He says, 'she is represented in two postures either seated or standing. In both cases a thick braid of hair is brought over the left shoulder before her breast and she is in the act of squeezing water out of it, by so doing bearing witness in favour of Buddha'. She is called "Wathundaye", the Burmanised

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1 *Archæological Survey of India Report* by Major-General A. Cunningham, Vol. IV, p. 77.

2 *Āīn-i-Akbarī*, English translation by Jarret, Vol. II, p. 279; *Khulāṣat-ut-Tawārīkh*, Persian text, p. 29; *Elliot's History of India*, Vol. IV, p. 477. See also *Athar-uṣ-Ṣanādīd*, pp. 17-19.

form of "Vasundharī" which again is the wrong but colloquial Sanskrit equivalent for the Earth 'Vasundharā'. She is a Buddhist divinity of inferior rank.

Her representations in Indian Buddhist sculpture so far found depict her in a different form *i.e.*, "as emerging from the earth at the call of the Bōdhisattva and holding a vase in her hand" (*Archæological Survey Report*, 1921-22, p. 146).[1]

In the Sarnath collection there appears to be an independent representation of this Goddess, though the figure is headless. The wringing of the braid of hair brought over the right shoulder may be seen herein.[2] But recently I have come across in Hampi three sculptures which are primarily connected with this earth Goddess, *i.e.*, Vasundharā, but appear to be differently treated according to the whim or taste of the sculptor or a local version of the legend with which she is connected. The central trait of the Goddess, *i.e.*, squeezing water out of her braid of hair is present in all the three though the position of the braid varies among the three. And another important departure from the Burman representation of the Goddess made in these is the association of the swan with her, as seen in all the three figures reproduced herewith. Of these,[3] the first (A) is found carved on a pillar in the side *maṇḍapa* of the Achyutarāyasvāmin temple at Hampi. Plate XL, *b*. The second (B) is carved on the back side of the basement of the main *gōpura* of the Hazāra-Rāmasvāmin temple in the same village. Plate XL, *a*. And the third (C) is depicted on a pillar in the Kalyāna-maṇḍapa of the Viṭhala temple there. Of these the last mentioned is very finely executed and for the technique of workmanship is the best of all the three, though B might appear to be more graceful than the other two on account of the pose in which the Goddess stands. A and C agree with the Burman description of the deity, in showing the braid of hair brought down over the left shoulder while B shows the braid hanging down over the right. The position of the swan, which is present in all the three figures is again not uniform in all of them. While it stands on the proper left of the Goddess in A and B, in C it stands on her proper right. Its function of sucking up or drinking the water squeezed out of the braid of hair is clear from A and C though in B the figure of the bird has not come out well. It will also be observed that the Goddess is depicted naked in these three figures and this was very probably the reason—if it were so in Burma also—for Bishop Tripitakalankara (17th century) causing the representation of this legend to be rubbed out from the wall of a cave in which it had been painted.[4]

The depiction of the Goddess in these Brahmanic temples of Hampi which rose up in the 15th-16th centuries A.D. must be accounted for by the presence among the architects of the temple of some members of the Buddhistic leaning. Even otherwise it might as well have had a powerful appeal to the non-Buddhistic architects too on account of the softening touch of the theme and its origin. It

[1] For her representation see *Catalogue of the Museum of Archæology at Sarnath*, Plates IX, XX (top panel). In the *Bhūmisparśa-mudrā* figure in *Archæological Survey Report*, 1903-04, Plate LXII, *Archæological Survey Report*, 1913-14, Plate 36 (50) there is no representation of the Earth-Goddess.

[2] *Vide Archæological Survey Report*, 1914-15, Plate LXV, C.

[3] Negative Nos. 1385, 1388 and 1456 of the Office of the Superintendent for Epigraphy, Madras.

[4] *Vide A. S. R.* 1921-22, p. 146.

is really a very charming scene for any eye to behold a swan softly sucking water squeezed out of her hair by a lady in dignified pose.

The significance of the swan in the theme with which this Buddhistic Goddess is connected is yet to be determined. If the summoning of the Earth by the Bōdhisattva was meant for distinguishing the truth from untruth for the humiliation of Māra, it would certainly be in place to associate with the theme the swan which has traditionally been endowed with the capacity of sifting milk or *sōma* from water, *i.e.*, essence from non-essence and so truth from untruth.

In any case, the three sculptures now noticed deserve a careful study in association with the legend of the Buddhist Goddess 'Vasundharā'.

In the Photographic collection of the Superintendent, Archæological Survey, Burma Circle are noted four figures said to represent the Goddess Wathundaye (Vasundarī or Vasundharā). These are Nos. 2327, 2684, 2685 and 2686 of the Superintendent's List corrected up to 31st March 1935. All of these come from the Shitthaung pagoda at Mrohaung, in the Akyab district. Of these, No. 2686 the original of which is broken crosswise in the lower half. seems to represent the incident in the Bōdhisattva's life in the terms of the tradition connected with it, though we have to observe some differences in the sculptural treatment of the theme as compared with the sculptures at Hampi and other known sculptures in India of the Bhūmisparśi-Buddha with whom this is intimately connected. In the group depicted in this photograph, we see only a profile view of the figure squeezing out water from its braid of hair. The figure is broken in the lower half of the face below the nose and the jaws as also in the left leg, and is seated in what we may call the *sukhāsana* posture suitable for the Indian fashion of sitting either on the ground or on a low plank or stool. The posture is very much like the one adopted by the lower female figure (evidently Lakshmī) on the proper left side of Ādinārāyaṇa at Bādāmi[1] and also by Varuṇa[2] in the same place. One interesting point to be noted about this figure is that it has two arms on the right side, of which one is holding the lower part of the braid while the other is raised up and its pose or function is not determinable as the wrist and the hand are broken off. It may, however, be reasonably expected that on the left side too, there are two arms, though only one is seen and we may conclude that the figure is a four-armed one. The feminine features of this deity are not brought out clearly in the sculpture, judging from the low relief of the breasts of the Goddess. The same must be said about the attendant female figure seated in a posture like the one adopted by Śēsha in the Varāha panel at Bādāmi (*Ind. Ant.* Vol. VI, plate opp. page 354). Behind the smaller figure is shown a vase with a narrow but levelled bottom looking very much like a Greek vase without the handle. (cf. also the topmost vessel in figure *b* of Pl. XXVI, *Archæological Survey Report* of 1908-9). Above this is what looks like the head of a bird with its beak dipped probably into the mouth of the vase. The whole group is a curious combination. The vase is probably reminiscent of the vessel which the earth Goddess is shown as carrying in the

[1] *Ind. Ant.*, Vol. VI, opp. p. 354.

[2] *Ibid.* opp. 361.

Indian figures of the Bhūmisparśi-Buddha and the bird's head is perhaps reminiscent of the swan which is connected with this figure in the Hampi figures now under discussion. In spite of all its variations, there appears to be no doubt about the incident which the sculpture in its entirety is intended to represent.

In the same temple from which this group comes are seen three others depicting the same incident. In No. 2327 the braid-squeezing deity in contrast with the one noticed above has only two arms though it is seated in the same posture. Although the figure appears from its features also to be more like a male than a female there is no doubt as to its representing the earth Goddess. The smaller figure to its proper right is seated in the same position and attitude as that of the attendant figure in No. 2686 and is clearly a female. The tip of the braid of hair squeezed out by the Goddess seems to pass down, then slightly curl up and then touch the loins of the smaller figure and reminds us of the position of the trunk of Gaṇapati in the Vallabha-Gaṇapati form, *i.e.*, touching the secret parts of his consort. On the crest of the head of this latter figure, there seems to be seated or perching a bird facing the proper left and with its slightly opened-out plumage raised at the back and this is probably meant to represent the swan figured in the Hampi sculptures but perhaps personified here into a woman with a swan's crest receiving the squeezed-out waters into her own constitution through her loins, instead of directly sucking them like the swan in the Hampi sculpture.

In another place in the innermost corridor of the same temple is a group of three figures depicting the same theme but in a more elaborate form. The braid-squeezing deity occupies the place of honour in the middle of three figures and is also the biggest of them. They are carved on a pillar on one face of which is the main figure and this is flanked on either side by a female figure carved on the adjacent side of the pillar. These are shown in two groups (Nos. 2684 and 2685).

It is easy to guess from its pose that the main or the central figure seated in the same posture as in the other two sculptures described above is Vasundharā while the attendant female figures are seated exactly in the same attitude as that in No. 2686. The braid of hair in this case seems to be divided or parted into two halves reaching the loins of the female figure on either side. There is no definite suggestion of a swan in this group unless we could assume the rough figure at the right hand lower corner of No. 2684, to be that of a swan whose head conceals the fingers of the left hand of the female figure, resting on the floor. This is as likely the case as not.

These sculptures of the braid-squeezing theme raise problems regarding their relationship or fidelity to the original tradition, *viz.*, that the Earth Goddess should squeeze out water from her hair. There is hardly any doubt that the principal deity in all these four Burmese sculptural groups is a female though carved indifferently. In all these cases, there is one common feature, *viz.*, that the braid of hair is brought down over the left shoulder and in front of the breasts. The question then arises as to the relationship of these representations to the original story, even as it is current in Burma.

If the doubtful main figures in these sculptures should in any event turn out to be males, the tradition bearing on these would appear to have undergone a great transformation in local Burmese legend and the braid-squeezing property or function would then appear to have been transferred to Varuṇa, the God of Waters, who perhaps squeezes out the waters of his braid in confirmation of Buddha's previous sacrifices. The other possible surmise is that the Burmese Buddhist tradition invented or fancied a male counterpart of the Earth Goddess squeezing out water from her hair just as Brahmanic religious symbolism has evolved the several *Śaktis*, like Brāhmī, Vaishṇavī, Vārāhī, etc., as the female counterparts of the corresponding male deities. Apart from the difficult solubility of the origins of these Burmese conceptions, it is an interesting study in itself to examine and record the several forms that this Buddhist episode assumes and the transformations that it has undergone in different lands and communities.

A NOTE ON A COLLECTION OF INTERESTING PERSIAN *SANADS* PRESERVED IN AN ANCIENT FAMILY OF BRAHMAN JOSHIS AT ERANDOL IN KHANDESH DISTRICT.

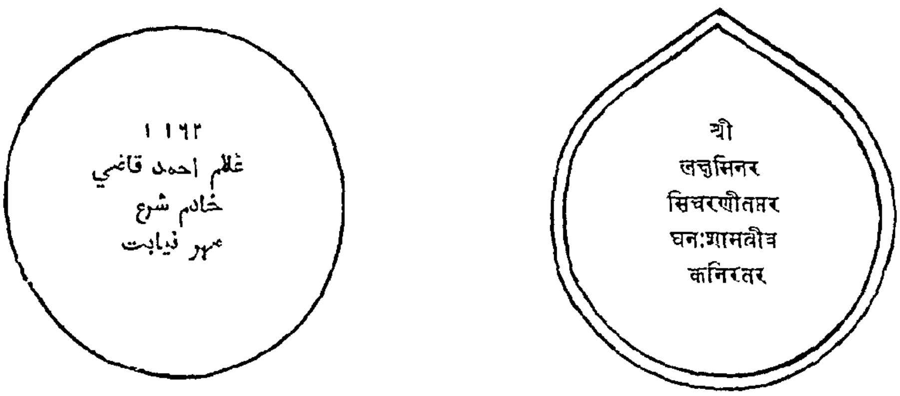
By Mr. Q. M. Moneer.

At Erandol in the East Khandesh District of the Bombay Presidency, a Brahman family of ancient repute (now represented by Mr. Padmakar Vasudeva Joshi) still carefully preserves a number of interesting Persian *sanads* which, in recognition of their deep knowledge of astrology, the forbears of this family through several generations had received at the hands of Aurangzeb and Farrukhsiyyar as also from the Mughal Viceroys and Nizams of the Deccan. Of ten such *sanads* which I was privileged to see in this family, the earliest three are those which bear the seal of Aurangzeb under dates 1089 A.H., 1096 A.H. and 1102 A.H. corresponding respectively to years 1678, 1684 and 1690 of the Christian era. The first of these three *sanads* purports to confer twenty bighas of land on Siva Ram son of Padmākar a Brahman Joshi (astrologer) of Utran (modern Erandol) to be enjoyed by him and his descendants in perpetuity. The second *sanad* dated 1096 A.H. confirms the previous grant and re-affirms the royal intention that the revenue or produce accruing from the grant shall belong to Siva Ram for his maintenance. The third *sanad* bearing Aurangzeb's seal and dated 1102 A.H. makes a further grant of 16 bighas of land on Siva Ram Joshi as a means of support for his large family. Chronological evidence of the collection of *sanads* under review shows that Siva Ram Joshi either pre-deceased or Aurangzeb died shortly after the Emperor, for in the two *sanads* which bear the seal of Farrukhsiyyar under dates 1126 A.H. and 1127 A.H. the grants are made in favour of Pahlad Joshi son of Sivaram Joshi. In his first *sanad*, Farrukhsiyyar praises the astrological services rendered by Pahlad to the officers and people of Erandol and rewards them with a grant of twenty-four bighas of land. His second *sanad* dated 1127 A.H. only purports to confirm the grant made in the preceding year.

Beside the five *sanads* bearing the seals of the Mughal emperors to which reference is made above, this family of Joshis at Erandol possesses five more Persian *sanads* which judging from the seals and dates they bear, appear to have been issued by the Nizams of Hyderabad after the dynasty had established its independent sovereignty in the Deccan, in 1722 A.D. These *sanads* also purport to recognize the astrological services rendered by this family to the officers and people of Erandol. The names of the Joshis mentioned in these later *sanads* (issued by the Nizams) read as (1) Sittaye Kant son of Pahlad and (2) Ichchā Rām son of Atmā Rām who was a son of Padmakar. These names and those mentioned in the *sanads* of the Mughal emperors Aurangzeb and Farrukhsiyyar, exemplify the continuity of royal recognition of the great astrological knowledge and deep piety of this family through four generations between 1678 A.D. and 1799 A.D.

Among these *sanads* there is one bearing date 1214 A.H. corresponding to the year 1799[1] A.D., which is of more than passing interest. It records and confirms the success of a public test of the yogic powers and astrological knowledge of Ichchā Rām, a member of this family of Joshis, in connection with a grave predatory menace which threatened to overtake the people and town of Erandol. It thus affords a glimpse into the nature of the unsettled conditions prevailing in Khandesh. This *sanad* combining as it does occultist and historical interest is copied below from the original (Plate XL *a* and *b*) with its English Translation :—

هوالفياض



اقرار کردند و اعتراف صحیح و شرعي معتبر نمودند مخبران باسم نسب خود مسمی جمیع مقدمان قصبه ارندول پرگنه مذکور سرکار اسیر صوبه خاندلیس برینوجه که مسمی شهامت خان قوم افغان ملازم سرکار دولت راو سندهیه در نواح خاندلیس بمعه افواجها عبور نمود و دست تطاول بمال مردمها دراز ساخته ازین وجه تهلکه عظیم رو داده - درین صورت مسمی اچها رام ولد آتما رام ابن پدمنات جوشي قوم زنار دار ججر بیدي منجم متوطن قصبه مسطور از نزد حکومت پناه فوجدار و زمینداران پرگنه مذکور آمده و دستاویز از رؤے نجوم نوشته داده که قصبه و پرگنه مرقوم در حفظ امن امان خواهد ماند و هیچ عنوان از دست افغان مزبور جزر و نقصان هرگز نخواهد شد

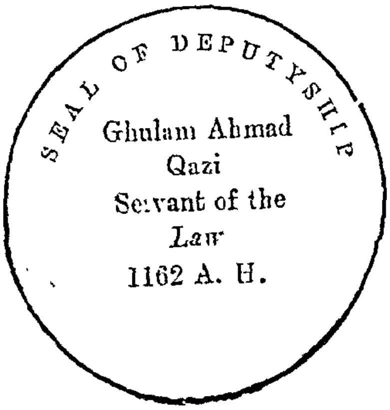
[1] [Actually the date works out to be 26th March 1800, which is corroborated by the mention of the Hindu date in the Marathi endorsement at the end—K. N. D.]

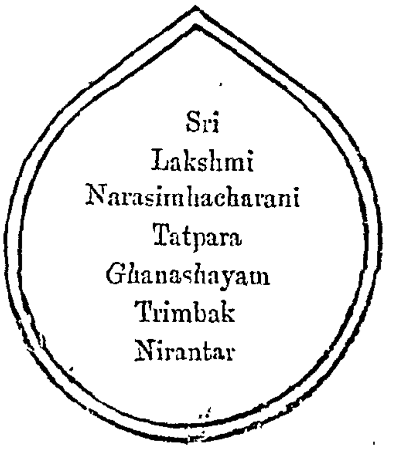
بعدهٔ جوشي مسطور در عبادت چله كشي كاليكا ديوي بنابر ارازگي خان مزبور مشغول گرديد و در عرصه چند روز مسموعيانته كه افغان مرقوم در تاخت و تاراجي آمده و غارت شده دران وقت فوجدار صاحب و تكلسدار صاحب و زميداران پرگنه مذكور پنج پرتن زمين بطريق انعام به زنار دار مرقوم دادن مقرر نمود و بموجب نوشته دستاويز جوشي مزبور حق سبحانه جل شانه بمراد مقصود رسانيد و تهلكه خانِ مزبور دفع گرديد بنابران پنج پرتن زمين بطريق انعام دادن ضرور افتاد درين باب زميداران مزبور عذر پروانگي سر صوبه‌دار درميان آورده ازين سبب جوشي مشار اليه در سراري سر صوبه دار صاحب بذات خود رفته و حكم سر صوبه دار بنام زميداران پرگنه مسطور صادر كرده آورد انچه در اقرار جوشي مرقوم نموده اند انرا ادا سازند دريک پرتن زمين لايق زراعت و بغايت در ان ميان چاه كنديده و اشجار گل ها كاشته بنابر پرستش ديوي بداده و چهار پرتن در انميان زراعت بكند چنانچه موافق حكم سر صوبه دار در زمين انعام مها بانو بقصبه مسطور مقرر گشت از انجمله پنج پرتن زمين بطريق انعام به مسمى اچها رام جوشي مزبور را داديم در طول ان مابين شرقي و غربي موازي هشت بيگهه و عرض ان مابين شمالي و جنوبي موازي دو و نيم بيگهه جمله پنج پرتن مي شود محدود بدين حدود اربعه بتفصيل ذيل :—

شرق ——————	غرب ——————
متصل است زمين افتاد مسمى خوريكر پتيل ولد مكند پتيل باشنده قصبه مزبور	پيوسته است حد نند كايون خورد پرگنه مذكور
شمال ——————	جنوب ——————
ملحق است زمين افتاد بابت انعام مسماة مها بانو از قديم الايام مقرر است عنقريب اسامى مسمى كشل سنگ پرديسي ساكن قصبه مسطور	ملحق است انعام كيسو راے دالويدكر انعام معروف حال شاه فقير بيض

بموجب مرقوم الصدر برضا و رغبت خود به جوشي مزبور را انعام كرده داديم مشار اليه را بايد كه زمين مرقوم را كشت كار نموده از فرزند تا بفرزندان خود قابض و متصرف باشد بناعليه اينچند كلمه بطريق سند نوشته داده شد كه عند الضرور بكار آيد كان ذالک تحرير فتاريخ بيست و نهم شوال المكرم سنه ۱۲۰۹ فصلي موافق سنه ۱۲۱۴ هجري مقدسي تحرير نموده شد

He is the Most Bountiful.





All the Elders of the township of Erandol in the parganah of same name in the Asir district of the province of Khandesh, each mentioning his lineage, affirmed and made legally reliable admission of the fact that when Shahāmat Khān an Afghān retainer in the service of Daulat Rao Scindia crossed the borders of Khandesh with an armed horde and stretched the hand of plunder over the belongings of the people, there prevailed intense consternation. In that predicament, a person named Ichchā Rām son of Atmā Rām the son of Padamnāth Joshi, of caste Zunnārdār (Holy thread wearer, *i.e.*, Brahman) of Yajur Vedi sect and astrologer and resident of the town mentioned above, approached the Faujdār (Commander) the shield of the Government and the Zamindārs (landlords) of the parganah in question and presented a document based on astrological calculation, to the effect that the town and parganah mentioned above shall remain under the shelter of peace and tranquillity and shall in no wise suffer any loss or damage at the hands of the Afghān mentioned above. After that the Joshi, in order to encompass the ruin of the Khān, engaged himself in yogic worship of goddess Kālkā Dēvī. And in a few days it came to be heard that following his own devastating raids the Afghān himself had perished. At that time the Faujdār (Commander), the Tunkādār (Treasury Officer) and Zamindārs (landlords) of the parganah named, had agreed to grant five partans of land as reward to the Zunnārdār (Holy thread wearer, *i.e.*, the Brahman). When, according to the writing in the document of the Joshi (astrologer) in question, God of exalted Glory and Power granted the desired object and the terror of the Khān disappeared, the making of the promised grant of five partans of land as reward, became necessary. In this connection the landlords brought forth the plea of (obtaining) permission of the Sar Sūbāhdār (Chief Commissioner). For that reason, the Joshi (astrologer) referred to, personally went to (join) the retinue of Sar Sūbāhdār and had an order issued from the Sar Sūbāhdār to the landlords of the parganah in question, that the promise made to the Joshi must be fulfilled and that one partan of arable land with a well dug in it near its boundary and cultivated with flower plants be given to him for performing worship of the goddess and four partans for cultivation. Accordingly, in compliance with the order of Sar Sūbāhdār the land of Mahā Bānō in the town mentioned was fixed upon, out of which five partans of land have been settled as reward to Ichchā Rām Joshi. In length they measure eight bighas from east to west and in breadth two and a half bighas from north to south, the total making up five partans limited to the boundaries detailed below:—

On east, adjoining the fallow land of Khurekar Patel son of Mukand Patel resident of the town mentioned;

On west, conjoins the boundary of the village Nandgaon Khurd in the parganah referred to;

On north. contiguous with the fallow land, long since assigned as reward to Mūssammāt Mahā Bānō and close to the tenancy of Kūshal Singh Pardēsī resident of the town in question;

On south, joins the inām land of Keshav Rai Dalvadekar now known as Shah Faqir.

According to above mentioned, we of our own free will and pleasure have made the grant to the Joshi in question, who ought to cultivate the land in question and own and occupy it from generation to generation. These few words have been recorded and given for the reason that they might serve as authority when occasion demands. This document is written on the 29th Shawwāl al-Mukkaram in 1209 Fasli corresponding to 1214 A.H.

SECTION IX—DEPARTMENTAL ROUTINE NOTES.

ANCIENT MONUMENTS PRESERVATION ACT AND LISTING OF MONUMENTS.

United Provinces.—The Trustees and owners of the Tomb of Nawab Sadar Jahan at Pihani, Hardoi District and of the Gateways of the Caravansarai situated in village Sondhan Muhammadpur, Pargana Sambhal, Moradabad District, entered into agreements under Section 5 of the Ancient Monuments Preservation Act. The Notification of protection in respect of the four gateways of Shuja-ud-Daulah's time at Fyzabad was withdrawn.

North-West Frontier Province.—One monument, *viz.*, "The black Rocks at Water's edge" on the right bank of the Indus was declared protected. Confirmatory notifications of protection in respect of 13 monuments, 3 of which are in Hazara District, 2 in Dera Ismail Khan District and 8 in the Peshawar District, were issued. The Government of the North-West Frontier Province has been requested to declare as protected under Section 10A of the Amendment to the Ancient Monuments Preservation Act 19 ancient mounds which are likely to yield antiquities if excavated.

Bombay Presidency including Sind.—Two monuments, *viz.*, Pandawa's Wada Masjid at Erandol in the East Khandesh District and the temple of Kalameshwar Deva at Unkal in the Dharwar District were deleted from the list of the protected monuments. Changes in the sub-classification of one monument in the Ahmedabad District and four at Champaner in the Panch Mahals District were made by the issue of fresh notifications.

Bihar and Orissa.—Two monuments, *viz.*, the Buddhist Stūpa at Kesariya and the ruined fortress at Chankigarh in the Champaran District were declared protected.

Central Provinces.—The ancient Buddhist remains at Mansar in the Ramtek Tahsil of Nagpur District comprising a monastery, stupas and rock-cut inscriptions were added to the List of the protected monuments.

Madras.—Two Buddhist sites in Sattenapalle Taluk, Guntur District, were declared protected. The Trustee of the monument known as "Cavern with Panchapandava beds on the rocky hill" at Tirupparankundram, Madura District, entered into an agreement under Section V of the Ancient Monuments Preservation Act.

Burma.—The remains of a sculptured wall known as Sindat-Myindat at Zokethoke, Bilin Township, Thaton District, was added to the List.

PUBLICATIONS.

The following publications were issued by the Department during the year 1935-36 :—

1. *Annual Report of the Archæological Survey of India* for the year 1929-30, edited by Rai Bahadur Daya Ram Sahni.

2. *Annual Report on South Indian Epigraphy* for the year ending 31st March 1932 by C. R. Krishnamacharlu.
3. *Memoir No. 47.—A Record of all the Quranic and non-historical epigraphs on the protected monuments in the Delhi Province* by Ashraf Husain.
4. *Memoir No. 50.—Sravasti in Indian Literature by* Dr. B. C. Law.
5. *Memoir No. 51.—Animal Remains from Harappa* by Dr. Baini Parshad.
6. *Appendix III to the Annual Report of the Archæological Survey of India* for the year 1933-34 (for official use only).
7. *Descriptive Catalogue of antiquities recovered by Sir Aurel Stein during his explorations in Central Asian, Kansu and Eastern Iran* (now exhibited in the Central Asian Antiquities Museum, New Delhi) by F. H. Andrews.
8. *List of Archæological Photo-negatives of Assam and Bengal* stored in the Office of the Archæological Survey, Eastern Circle, Calcutta, corrected up to 31st August, 1933.
9. *List of Archæological Photo-negatives of the United Provinces of Agra and Oudh and the Delhi Province* stored in the Office of the Superintendent, Archæological Survey, Northern Circle, Agra, corrected up to 31st March, 1932.
10. *List of Archæological Photo-negatives of Burma*, stored in the Office of the Superintendent, Archæological Survey, Burma Circle, Mandalay, corrected up to 31st March, 1935.
11. *Epigraphia Indica, Vol. XXI, Part VII* and *Vol. XXII, Parts II-V*, edited by Dr. N. P. Chakravarti.
12. *South Indian Inscriptions, Vol. VIII*, by K. V. Subrahmanya Aiyar.
13. *Epigraphia Indo-Moslemica, Vol. 13* for the years 1931-32 and *Vol. 14* for the years 1933-34 edited by G. Yazdani.
14. *Epigraphia Birmanica, Vol. IV, Part I*, containing the descriptive account, text and translation of six Mediæval Môn inscriptions Nos. XIII to XVIII by Dr. C. O. Blagden.
15. *Epigraphia Birmanica, Vol. IV, Part II*, containing eleven plates reproducing the six Mediæval Môn inscriptions Nos. XIII to XVIII by Dr. C. O. Blagden.

The following publications are in the Press :—

1. *Memoir No. 49.—Bijapur Inscriptions* by Dr. M. Nazim.
2. *Memoir No. 52.—Kotla Firozshah* by J. A. Page and M. H. Kuraishi.
3. *Memoir No. 53.—Albiruni's Picture of the World* by Professor Ahmet Zeki Valedi of Bonn University, Germany.
4. *Memoir No. 54.—The Buddhist Antiquities of Nagarjunakonda* by A. H. Longhurst.
5. *Guide to Taxila* by Sir John Marshall.
6. *Guide to Sanchi* by Sir John Marshall.
7. *Guide to Delhi Fort* (reprint) by Khan Bahadur Maulvi Zafar Hasan.
8. *Guide to Agra Fort* by Ashraf Husain.

9. *Guide to Sarnath* by B. Majumdar.
10. *Guide to the Sculptures in the Indian Museum, Parts I and II,* by N. G. Majumdar.
11. *Guide to Fatehpur Sikri* by Ashraf Husain.
12. *Consolidated Edition of the Annual Reports of the Archæological Survey of India* for the years 1930-34 by Dr. C. L. Fabri.
13. *Annual Report of the Archæological Survey of India* for the year 1934-35 edited by J. F. Blakiston.
14. *Annual Report on South Indian Epigraphy* for the year ending 31st March 1933 by C. R. Krishnamacharlu.
15. *Annual Report on South Indian Epigraphy* for the year ending 31st March 1934 by C. R. Krishnamacharlu.
16. *Supplement to the Epigraphia Indo-Moslemica* for the year 1933-34 by G. Yazdani.
17. *South Indian Inscriptions, Vol. XI,* by C. R. Krishnamacharlu.
18. *Epigraphia Indica, Vol. XXII, Parts VI and VII* by Dr. N. P. Chakravarti.
19. *Further Excavations at Mohenjodaro* by Dr. E. J. H. Mackay.
20. *Sanchi Monograph* by Sir John Marshall.
21. *Catalogue of the Coins of the Sultans of Delhi* by H. Nelson Wright.
22. *List of Photo-negatives* in the Office of the Director General of Archæology in India. Parts I and II.
23. *Consolidated Catalogue of books* in the Library of the Director General of Archæology.
24. *Appendix III to the Annual Report of the Archæological Survey of India* for the year 1934-35 (for official use only).
25. *Appendix III to the Annual Report of the Archæological Survey of India* for the year 1935-36 (for official use only).

PHOTOGRAPHS.

Director General of Archæology.—During the year 193 negatives were prepared. Of these, 20 relate to the Lodi buildings in Delhi; 6 are of the antiquities found at Azamgarh (U. P.): 12 represent Mosques and tombs at Sarangpur in Dewas State: 15 are of the Jain temples at Un in Indore State; 20 relate to the images found at Mandhata in the Central Provinces and Gandhawal in Gwalior State: 20 represent temples and other buildings at Ujjain and the remaining 100 record the excavations carried out and the antiquities recovered from the Dharmrajika Stupa at Taxila. Of the prints made during the year, 45 were required for the use of departmental officers, 2135 for record in the albums kept at Taxila Museum and 1006 for the albums maintained at India Office in London. From Provincial Offices 1187 prints were received and these were mounted in the albums kept for reference in the Archæological Office at Simla. Of 374 prints supplied to the public, 108 relate to the Taxila Museum. Their sale-proceeds amounted to Rs. 272-3-6.

Northern Circle.—In all 74 plates were exposed, of which 25 relate to sites at Saharanpur and the rest to the various monuments in the United Provinces and Delhi. Of the 781 prints, 691 were required for the use of the departmental officers and 90 were sold to the public at a cost of Rs. 103-6-0.

Frontier Circle.—One hundred and forty-one negatives were prepared in connection with the conservation work in the Lahore, Attock, Rawalpindi, Kangra, Hissar and Karnal Districts. Of the 710 prints made, 343 were supplied to the India Office, London, 378 to the departmental officers and 99 to the public.

Western Circle.—Altogether 190 negatives and 972 prints were prepared. Of the latter, 520 were supplied to the Director General of Archæology, 411 to other departmental officers and 41 to the public, the sale-proceeds of which latter amounted to Rs. 48-4-6.

Central Circle.—Two hundred and seventy-three negatives were added to the collection. Of the 1,708 prints, 275 were required for the album maintained in the Office of the Director General of Archæology in Simla, 678 for departmental officers, 582 for the albums kept in the Circle office, 24 to illustrate the Annual Report for the year 1934-35, 65 for the selected set of photographs sent to London and 84 for the supply of the public.

Eastern Circle.—One hundred and thirty-eight negatives were prepared.

Southern Circle.—Two hundred and one plates were exposed and 916 prints made. Of the latter, 474 were required for record in the Circle office, 308 were supplied to the Director General of Archæology, 10 to the Madras Museum, 10 to Manager, Palace Devasthanam, Tanjore, 8 to the Superintendent, Northern Circle, Agra, and 106 were sold to the public at a cost of Rs. 103-1.

Burma Circle.—Forty-three photographs were prepared, which represented principally the images and fresco-paintings found at Myinpagan and Pagan.

Indian Museum, Calcutta.—One hundred and sixty-two negatives were prepared in the Archæological Section of the Museum.

DRAWINGS.

Director General of Archæology.—Three hundred and eighty drawings of selected antiquities consisting of terracottas, relic caskets, finger rings and other miscellaneous objects of stone, shell, silver and glass from the Taxila Museum were prepared to illustrate Sir John Marshall's forth-coming Memoir on Taxila. Drawings of the Monastery at the Dharmarajika Stupa and the conjectural restoration of Stupa F. 12 at Kalawan near Taxila were completed.

Northern Circle.—Forty-four drawings were prepared, the majority of which referred to the survey of ancient sites in the Districts of Saharanpur, Bijnor and Dehra Dun. The temporary Draftsmen employed for the survey of ancient monuments in Delhi prepared 27 drawings in pencil and inked in 25.

Frontier Circle.—Thirteen drawings were prepared of which 9 related to the ancient monuments at Lahore.

Western Circle.—Thirty-six plans relating to conservation works were prepared.

Central Circle.—Three drawings relating to the excavations—two for Nalanda and one for Rajgir—were completed in addition to two survey plans for Rajgir,

a drawing for the trial excavations at Gonsai Khanda and one of the crystal relic casket discovered at Kadam Kuan in Patna District.

Eastern Circle.—Eleven drawings were prepared, all of which related to the excavations carried out during the year at Gokul in the District of Bogra and at Lauriya and Nandangarh in the District of Champaran.

Southern Circle.—A plan for the proposed Museum at Nagarjunakonda was prepared.

Burma Circle.—Nine drawings were prepared. These included seven outline drawings of paintings found on some of the walls of the temples at Pagan.

PERSONNEL.

Mr. J. F. Blakiston was confirmed as Director General of Archæology on the retirement of Rai Bahadur Daya Ram Sahni on the 1st June 1935. Mr. K. N. Dikshit continued as Deputy Director General of Archæology and Mr. H. L. Srivastava as Assistant Superintendent, Archæological Survey for Central India and Rajputana.

Mr. Muhammad Hamid Kuraishi held the Office of the Superintendent, Archæological Survey, Northern Circle, till the forenoon of the 15th October 1935 when Khan Bahadur Maulvi Zafar Hasan, after his return from leave, took over charge from him. Mr. Muhammad Hamid Kuraishi relieved Dr. Mohammad Nazim, who was officiating Superintendent, Archæological Survey, Frontier Circle, Lahore, on the 23rd October, 1935. The latter proceeded on four months leave on average pay, and after the expiry of the leave joined at Patna on the 5th March 1936 as Assistant Superintendent, Central Circle.

Mr. N. G. Majumdar was confirmed as Superintendent, Archæological Section, Indian Museum, with effect from the 1st June 1935 and continued to hold charge of the Eastern Circle as well as of the Archæological Section, Indian Museum, Calcutta. Mr. T. N. Ramachandran, M.A., was appointed as Assistant Superintendent, Archæological Survey, Eastern Circle, on the afternoon of the 20th November 1935. Mr. C. R. Krishnamacharlu, Superintendent for Epigraphy, Madras, proceeded on leave on average pay for three months and 17 days with effect from the 5th September, 1935. Mr. G. V. Srinivasa Rao, Senior Epigraphical Assistant, held charge of the current duties of the post of the Superintendent for Epigraphy in addition to his own till he was relieved by Mr. C. R. Krishnamacharlu on the 21st December, 1935.

Dr. B. C. Chhabra, M.A., M.O.L., Ph.D., was appointed Assistant Superintendent for Epigraphy with effect from the afternoon of the 5th August, 1935.

In the Burma Circle U Mya, Superintendent, Archæological Survey, took leave for one month and 25 days with effect from the 17th November, 1935, preparatory to retirement. U Ngwe Zin, Architectural Surveyor, held charge of the current duties of the post of the Superintendent in addition to his own from the 20th November 1935 until M. Chas. Duroiselle took over charge of the Circle from the 2nd March 1936. It may be recalled that M. Chas. Duroiselle had retired from the Survey on the 26th June, 1931; but in the absence of a suitable candidate to succeed U Mya he has been reappointed temporarily for one year.

APPENDIX I.

List of exhibits other than coins acquired for the Indian Museum, Archæological Section, during the year 1935-36.

PURCHASED.

1. (9285).—Stone image of Durga with four hands. $14\frac{1}{2}'' \times 8\frac{1}{2}''$. From Bihar.
2. (9402).—Fragment of a red stone sculpture; five horsemen visible. $9'' \times 7''$. From Mathura.
3. (9403).—Red stone bust of a Yakshi. From Mathura. Ht. $4\frac{1}{2}''$.
4. (9404-05).—Terracotta human heads. From Mathura.
5. (9407).—Copper-plates of Ganga King Bhupendravarman. From Ganjam District.
6. (9408).—Copper-plates of Ganga King Danarnava. From Ganjam District.
7. (9409).—Copper-plates of Ganga King Anantavarman. From Ganjam District.
8. (9410).—Copper-plates of Ganga King Devendravarman. From Ganjam District.
9. (9411-12).—Copper-plates of Ganga King Jayavarman. From Ganjam District.
10. (9413-14).—Copper-plates of Ganga King Indravarman. From Ganjam District.
11. (9415).—Copper-plates of Ganga King of Ranaka Ramadeva of the family of Tailapa. From Ganjam District.
12. (9483-84).—Terracotta heads. Ht. 7″ and 5″. From Gandhara.

TREASURE TROVE.

13. (9481).—Stone image of Parvati. $4'\ 2'' \times 1'\ 10\frac{1}{2}''$. From Dakshin Muhammadpur, near Comilla, Tipperah District.
14. (9482).—Bronze image of Ganesa. Ht. 16″. From Arkandanallur, District South Arcot.

PRESENTATIONS.

Presented by Mr. Ajit Ghose.

15. (9406).—Bronze image of Vajrasana Buddha. Ht. $3\frac{1}{8}''$.

Presented by Mr. K. N. Dikshit, Archæological Survey of India.

16. (9521).—Copper-plate inscription of Maharaja Hastin. From Nagad State, C. I.

Presented by Pandit Ramesvara Dayal, Deputy Collector, Azamgarh, U. P.

17. (9522-30).—Terracotta toy figures. From Ghosi, District Azamgarh, U. P.

On loan from the Director General of Archæology in India.

FROM AHAR.

18. (9286-92, 9296-99, 9302, 9304-07, 9314-15, 9317).—Iron nails, hooks, bowls, adze, saucer, etc.
19. (9293).—Trefoil brass object.
20. (9294-95, 9300-01, 9303, 9308-13, 9316, 9317A).—Copper rings, discs, lids, etc.

FROM RAJA KARAN KILLA, KURUKSHETRA.

21. (9318-24, 9327, 9333-34, 9337-39).—Iron nails. hooks and fragments of vessels.
22. (9325-26, 9328-32, 9336).—Copper rings, bangle, rod, etc.
23. (9335).—Piece of zinc.

FROM KOSAM.

24. (9340, 9342, 9344-47).—Fragments of iron adze, arrowhead, ring, etc.
25. (9341).—Brass pendant.
26. (9343, 9354, 9363).—Fragments of copper bell and balls.
27. (9349).—Gold wire ring.
28. (9350-52, 9356, 9361, 9372, 9375, 9377-79).—Stone and terracotta beads.
29. (9353, 9355, 9357-60, 9362, 9365, 9369, 9380-81, 9383-84).—Miscellaneous stone objects.
30. (9364, 9368, 9374, 9376).—Terracotta objects.
31. (9371).—Fragment of faience bangle.
32. (9367).—26 stone balls of tiny size.
33. (9373, 9382).—Ivory objects.
34. (9366, 9385-9401).—Stone weights.

FROM AGROHA.

35. (9370).—14 beads.

FROM CHETRU, DISTRICT KANGRA.

36. (9348).—Three pieces of iron.

FROM SARNATH.

37. (9485-90).—Sandstone fragments of sculpture with Mauryan polish.
38. (9491-95).—Sandstone fragments of sculpture of the Śuṅga period.
39. (9496-97, 9501, 9503-07, 9512).—Heads of Buddha figures.
40. (9498).—Part of back-slab from a Buddha relief with the figure of attendant Maitreya.
41. (9499).—Part of back slab of a Bodhisattva relief with the figure of a *chowri*-bearer.
42. (9500, 9509).—Stone capitals.
43. (9502, 9511, 9515).—Buddha statuettes.
44. (9508).—Stone bust of a female figure.
45. (9510).—Sand-stone cross-bar with floral design.
46. (9513).—Fragment of sculpture with a Vidyādhara couple.
47. (9514).—Painted hand of a Buddha figure.
48. (9516).—Fragment showing four planets including Rāhu.
49. (9517).—Six terracotta votive stūpas.
50. (9518-19).—Terracotta bricks and capitals.
51. (9520).—Twelve terracotta sealings.

FROM MASON DIH.

52. (9531).—Three terracotta discs with scalloped borders, Gupta period.
53. (9532).—Fragments of black pottery with polish, Gupta period.
54. (9533).—Ivory die.
55. (9534).—Fragment of marble ring.
56. (9535).—Terracotta dabber with a circular depression at the bottom.

FROM BAIRANT, DISTRICT BENARES.

57. (9536, 9538-40, 9544).—Terracotta balls and fragments of pottery.
58. (9537).—Stone fragment from an image.
59. (9541-43, 9545-46).—Terracotta heads, torso and a dabber.

ON TEMPORARY LOAN FROM THE DIRECTOR GENERAL OF ARCHÆOLOGY IN INDIA.

FROM NALANDA.

Bronze.

60. (9416-17, 9426-27, 9431, 9438, 9440, 9445).—Seated figures of Buddha.
61. (9421, 9433, 9436).—Standing figures of Buddha.
62. (9418-19, 9422-24, 9441).—Images of Tārā.
63. (9420, 9429, 9439, 9442, 9444, 9446-47).—Images of Bodhisattva.
64. (9425, 9434).—Images of Kubera.
65. (9430).—Image of Prajñāpāramitā.
66. (9428).—Miniature votive stūpa.
67. (9432).—Image of Chaṇḍī.
68. (9435).—Image of Balarāma.
69. (9437).—Image of Vishṇu.
70. (9443).—Image of Sūrya.

Stone.

71. (9456).—Image of Bodhisattva.
72. (9448-50, 9452-54).—Images of the Buddha seated.
73. (9451).—Image of Trailokyavijaya.
74. (9455).—Image of Kubera.
75. (9457).—Image of Tārā.
76. (9458-62).—Stucco heads.
77. (9463-64, 9477).—Terracotta plaques with representations of Buddha, Bodhisattva, Tārā and stūpa.
78. (9465).—Fragments of terracotta head.
79. (9466).—Terracotta votive stūpa.
80. (9467-76, 9478-80).—Terracotta sealings.

List of coins acquired for the Indian Museum, Archæological Section, during the year 1935-36.

I.—NON-MUHAMMADAN.

Ruler's name.	Dynasty.	Gold.	Silver.	Copper.	Total.	Mode of acquisition.
	Punch-marked	..	3	..	3	Purchased.
	Do.	..	1	..	1	On loan from D. G. A.
Ancient cast coins of N. India.	....	..	..	4	4	Purchased.
Do.	....	..	..	5	5	On loan from D. G. A.
Local coin of N. India	....	..	..	1	1	Do.
Do.	....	..	..	3	3	Purchased.
Eukratides	Indo-Greek	..	1	..	1	Do.
Abdagases	Indo-Parthian	..	..	1	1	Do.
Soter-Megas	Do.	..	..	1	1	Do.
Kadaphes	Kushān	..	..	2	2	Do.
Kadphises II	Do.	1	..	..	1	Do.
Kanishka	Do.	1	..	..	1	Do.

List of coins acquired for the Indian Museum, Archæological Section, during the year 1935-36—contd.

I.—NON-MUHAMMADAN—*contd.*

Ruler's name.	Dynasty.	Gold.	Silver.	Copper.	Total.	Mode of acquisition.
Kanishka . . .	Kushān . .	1	..	..	1	Purchased and presented by the Trustees, Indian Museum, Calcutta.
Huvishka . . .	Do. . .	2	..	..	2	Do.
Do. . . .	Do. . .	..	..	3	3	On loan from D. G. A.
Vāsudeva . . .	Do. . .	1	..	..	1	Purchased.
Do. . . .	Do. . .	2	..	..	2	Presented by Panjab Government.
Do. . . .	Do. . .	..	..	3	3	On loan from D. G. A.
Kanēshko . . .	Do. . .	1	..	..	1	Presented by Panjab Government.
Do. . . .	Do. . .	2	..	..	2	Presented by the Superintendent, Archæological Survey, Frontier Circle.
	Later Kushāṇ .	1	..	..	1	Purchased.
Chandragupta I . .	Gupta	1	..	..	1	Purchased and presented by the Trustees, Indian Museum, Calcutta.
Samudragupta . .	Do.	1	..	..	1	Purchased.
Do. . . .	Do. . .	1	..	..	1	Purchased and presented by the Trustees, Indian Museum, Calcutta.
Chandragupta II . .	Do.	1	..	..	1	Purchased.
Skandagupta . . .	Do.	..	8	..	8	Do.
	Indo-Sassanian .	..	..	1	1	Do.
	Gadhaiyā currency	..	1	..	1	On loan from D. G. A.
Sāmantadeva . .	Ohind	..	..	1	1	Do.
Do. . .	Do.	..	2	..	2	Do.
Madanapāla . . .	Rāthor . .	..	..	1	1	Purchased.
Coins with monogram *Kola*, etc.		..	..	5	5	On loan from D. G. A.
Bhojadeva I . . .	Pratihāra (Kanauj)	..	5	..	5	Purchased.
Naranārāyana . .	Koch	..	2	..	2	Presented by the Lord Bishop of Calcutta.
Lakshmīnārāyana . .	Do.	..	2	..	2	Do.
Miscellaneous (damaged and defaced)		..	..	10	10	On loan from D. G. A.
Sadāśivarāya . .	Vijayanagara .	4	..	..	4	Presented by B. B. R. A. S.
South Indian Pagodas .	Do. .	3	..	..	3	Do.
Indo-Portuguese . .	....	1	..	..	1	Do.
Unattributed	....	..	..	7	7	On loan from D. G. A.
TOTAL . .	....	24	25	48	97	

List of coins acquired for the Indian Museum, Archæological Section, during the year 1935-36—concld.

II.—MUHAMMADAN.

Ruler's name.	Dynasty.	Gold.	Silver.	Copper.	Total.	Mode of acquisition.
'Alāuddin Muḥammad II	Sulṭāns of Delhi .	..	1	..	1	Presented by U. P. Government.
Muḥammad bin Tughlaq	Do. .	..	..	2	2	On loan from D. D. A.
Ghiyāṣuddin Mahmud (Pretender).	Do. .	..	1	..	1	Presented by U. P. Government.
Firoz Shah II Tughlaq .	Do. .	..	..	1	1	On loan from D. G. A.
Sikandar I bin Iliyās Shah.	Sulṭāns of Bengal .	..	1	..	1	Purchased.
Bārbak Shah . .	Do. .	..	1	..	1	Excavated at Mahasthan.
Yūsuf Shah . . .	Do. .	..	3	..	3	Do.
Do. . . .	Do. .	..	1	..	1	Presented by Miss G. G. Harrison.
Bahādur Shah II . .	Do. .	..	3	..	3	Excavated at Mahasthan.
Dāūd Shah . . .	Do. .	..	2	..	2	Do.
Akbar	Mughal . . .	..	1	..	1	Purchased.
Do.	Do. . . .	..	1	..	1	Presented by B. B. R. A. S.
Shāh Jahān . . .	Do. . . .	..	1	..	1	Do.
Do. . . .	Do. . . .	..	..	2	2	On loan from D. G. A.
Aurangzeb . . .	Do. . . .	..	1	..	1	Presented by B. B. R. A. S.
Do. . . .	Do. . . .	..	6	..	6	Presented by the Director of Industries, C. P.
Shāh 'Alam I . .	Do. . . .	..	1	..	1	Presented by B. B. R. A. S.
Muḥammad Shah . .	Do. . . .	..	7	..	7	Do.
Do. . .	Do. . . .	..	2	..	2	Presented by the Director of Industries, C. P.
Aḥmad Shah. . .	Do. . . .	..	1	..	1	Do.
Do. . . .	Do. . . .	..	1	..	1	Presented by B. B. R. A. S.
Shāh 'Alam II . .	Do. . . .	..	5	..	5	Presented by U. P. Government.
Do. . . .	Do. . . .	..	7	..	7	Presented by the Director of Industries, C. P.
Defaced pieces . .	Do. . . .	..	..	10	10	On loan from D. G. A.
'Imād Shahī . . .	Berar	..	..	2	2	Presented by the Director of Industries, C. P.
East India Company .	....	..	..	2	2	On loan from D. G. A.
TOTAL .	....	..	47	19	66	
GRAND TOTAL .	....	24	72	67	163	

List of coins acquired for the Delhi Fort Museum, during the year 1935-36.

Ruler's name.	Dynasty.	Silver.	Copper.	Total.
PRESENTED BY THE BOMBAY BRANCH ROYAL ASIATIC SOCIETY, BOMBAY.				
Akbar	Mughal	1	..	1
Jahangir	Do.	2	..	2
Shāh Jahān	Do.	2	..	2
Aurangzeb	Do.	2	..	2
Farrukhsiyar	Do.	2	..	2
Muḥammad Shah	Do.	2	..	2
Aḥmad Shah	Do.	2	..	2
Alamgir II	Do.	1	..	1
Shāh 'Alam II	Do.	2	..	2
TOTAL	....	16	..	16
PRESENTED BY THE DIRECTOR OF INDUSTRIES, CENTRAL PROVINCES, NAGPUR.				
Muḥammad Shah	Mughal	4	..	4
Aḥmad Shah	Do.	1	..	1
Shāh 'Alam II	Do.	4	..	4
Akbar Shah II	Do.	1	..	1
Vyagrambari	Berar	..	2	2
TOTAL	....	10	2	12
PRESENTED BY THE GOVERNMENT OF THE UNITED PROVINCES, LUCKNOW.				
Muḥammad Shah	Mughal	5	..	5
Aḥmad Shah	Do.	3	..	3
Alamgir II	Do.	4	..	4
Shāh 'Alam II	Do.	16	..	16
Amjad Ali Shah	Oudh	1	..	1
Wajid Ali Shah	Do.	3	..	3
TOTAL	....	32	..	32
GRAND TOTAL	....	58	2	60

APPENDIX II.

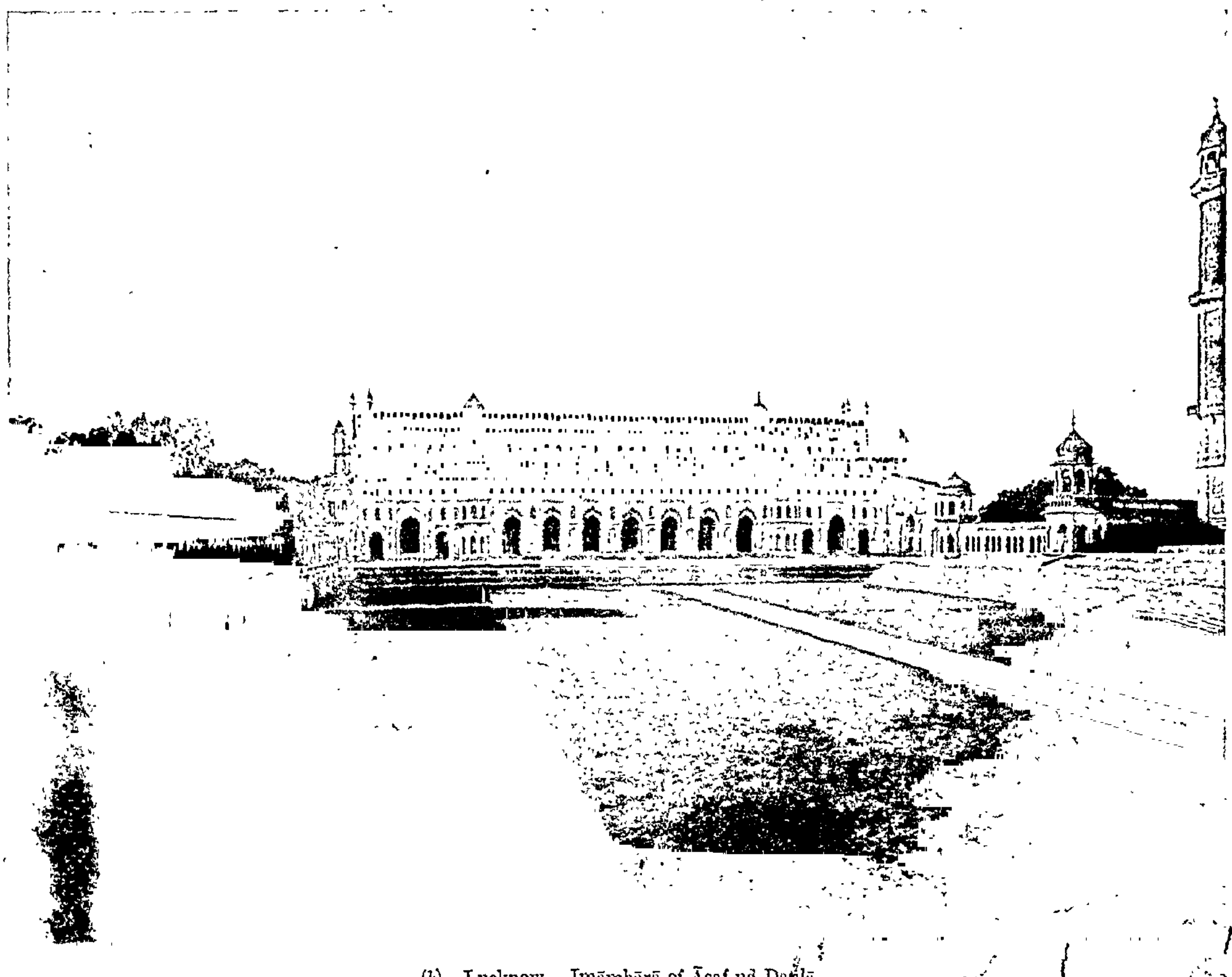
Additions to Departmental Libraries.

Name of Office.	Books purchased.	Books presented.	Total.
Director General	126	75	201
Northern Circle	33	56	89
Frontier Circle	82	39	121
Western Circle	21	15	36
Central Circle	44	35	79
Eastern Circle	10	55	65
Southern Circle	18	35	53
Burma Circle	54	72	126
Government Epigraphist	217	299	516
Superintendent for Epigraphy	31	29	60
Archæological Chemist	10	6	16
Indian Museum	29	41	70
Central Asian Antiquities Museum	9	19	28
Taxila Museum	1	19	20

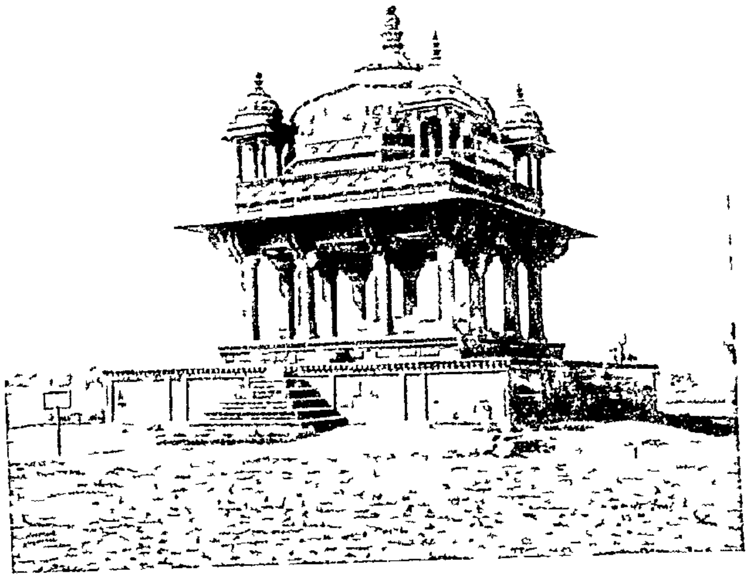
MGIPC—M—III-9-6—22-7-38—350.



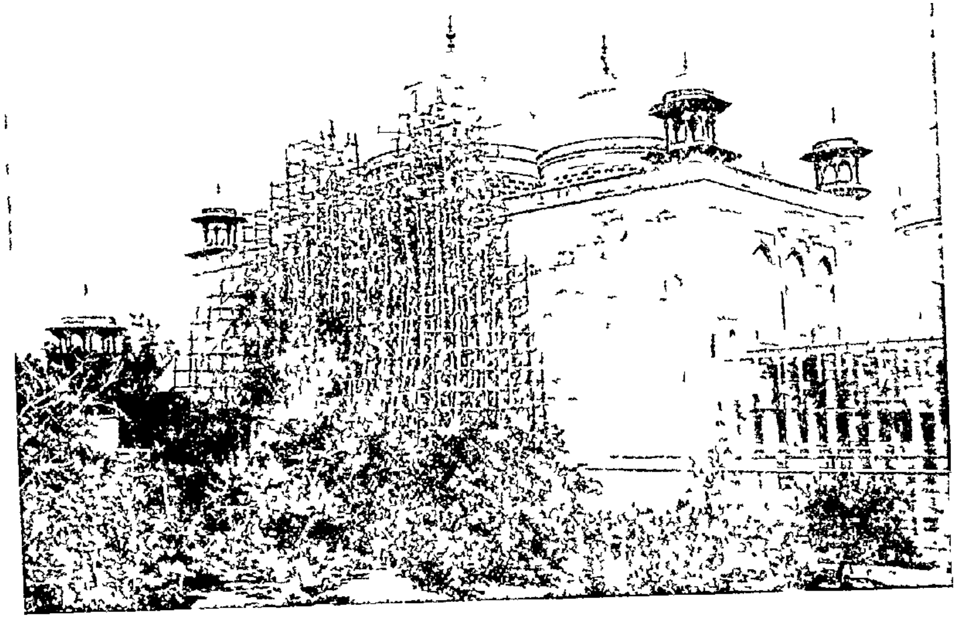
(a) Jaunpur. Akbari Bridge.



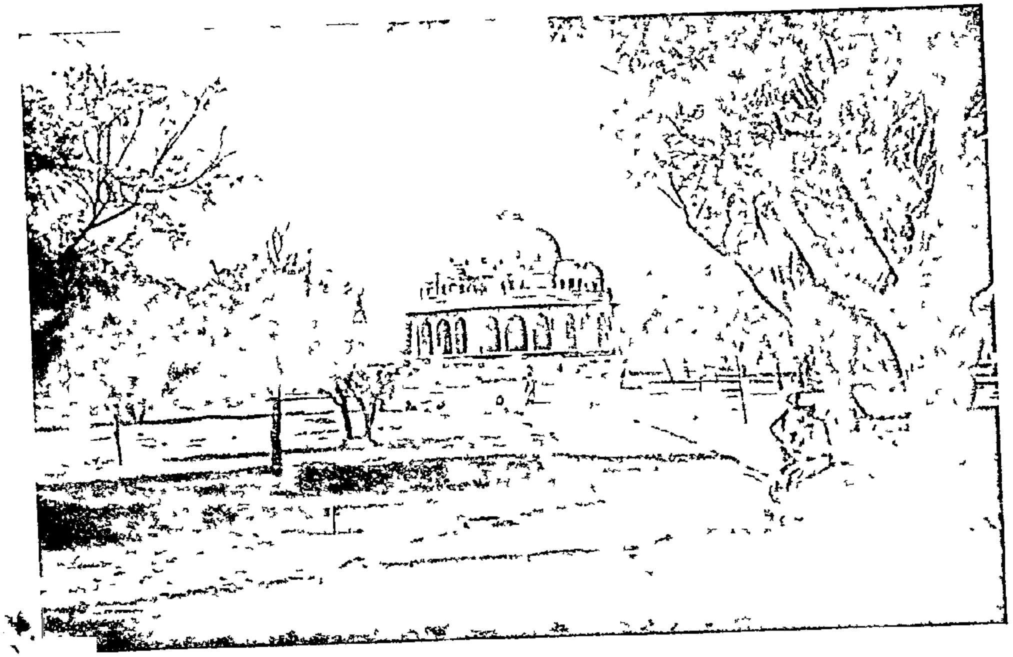
(b) Lucknow. Imāmbārā of Āsaf-ud-Daula.



(a) Kagarol Agra District Bārā Khambā, after conservation

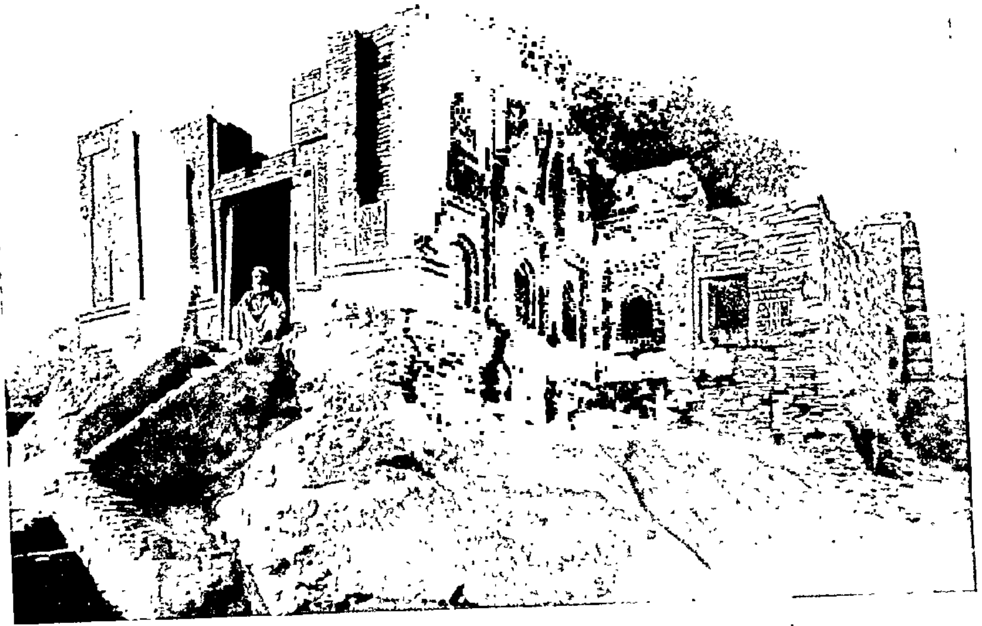


(b) Agra Taj Mahal Back view of the mosque after repairs





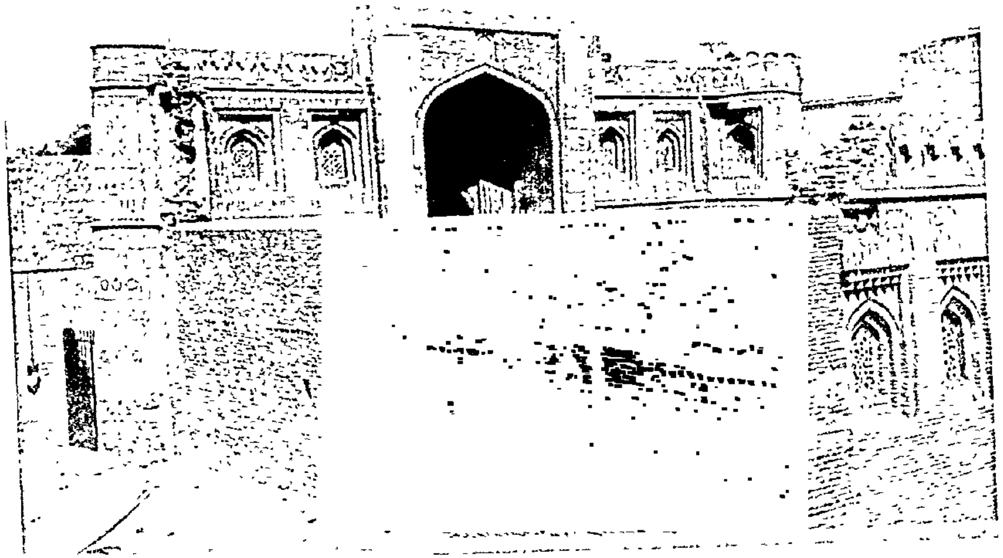
(d) Delhi Lodi Mosque and Shish Gumbad after laying out park. View from south west.

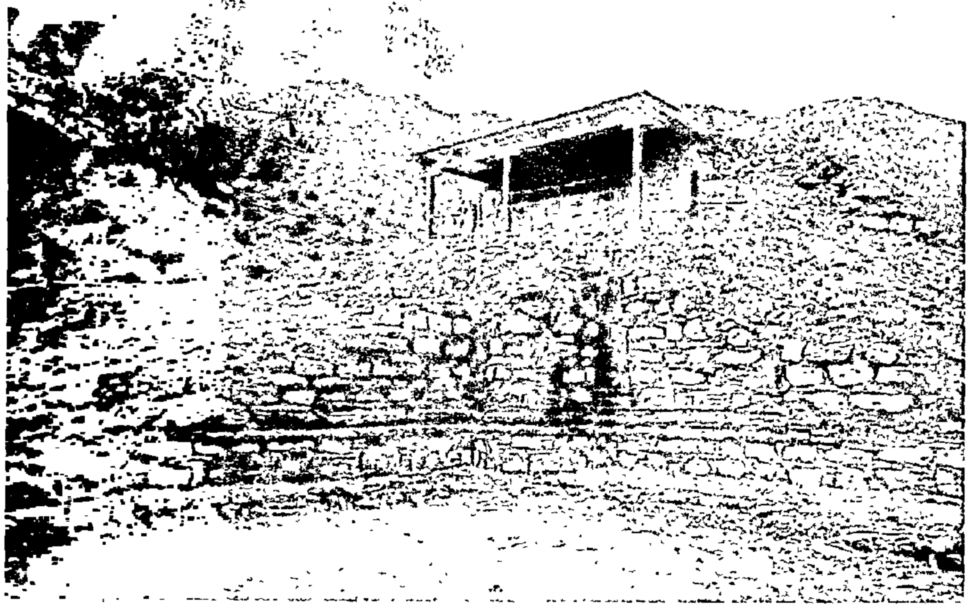


(a) Multan. Sawi Masjid from north-east, before conservation.

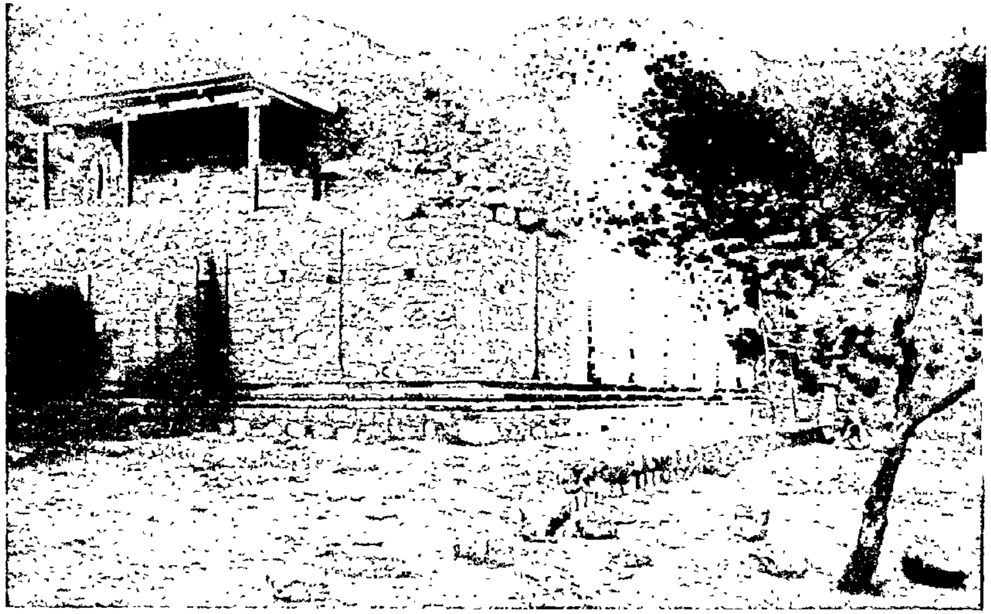


(b) Multan. Sawi Masjid from north-east, after conservation.





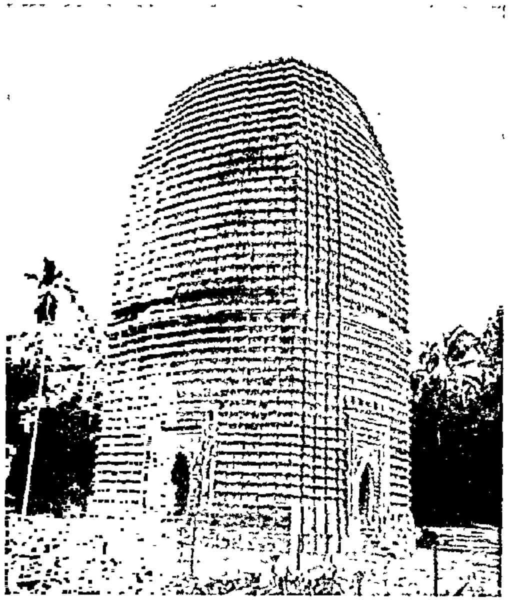
(a) Taxila. Mohrā Morādu Stūpa, before conservation.



(b) Taxila. Mohrā Morādu Stūpa, during the progress of work.



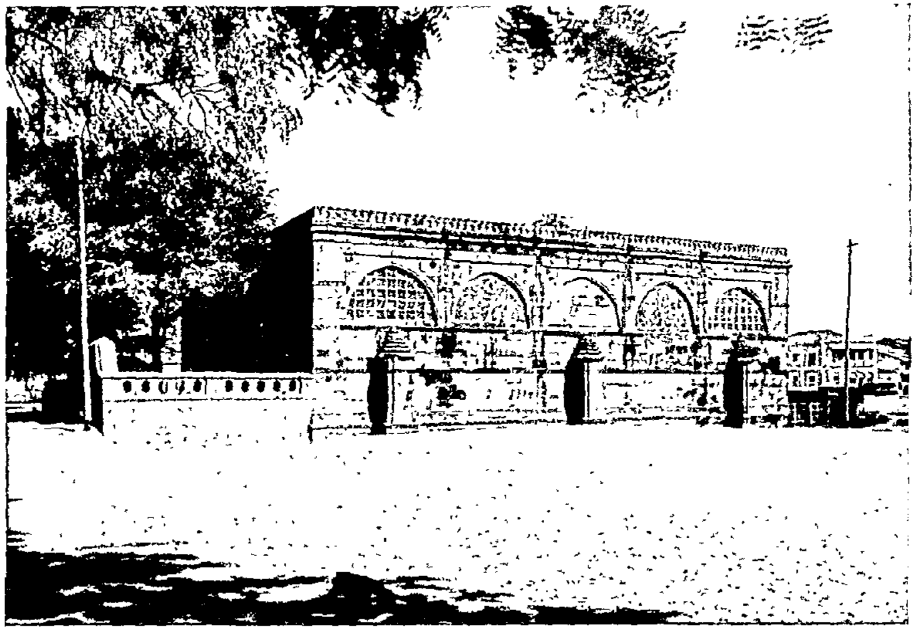
[illegible] District. The Math



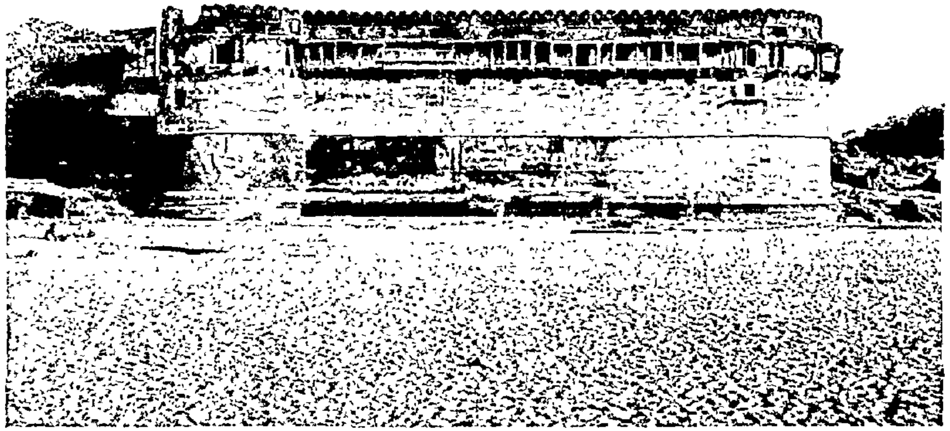
(d) Kodla. Khulna District. The Math.



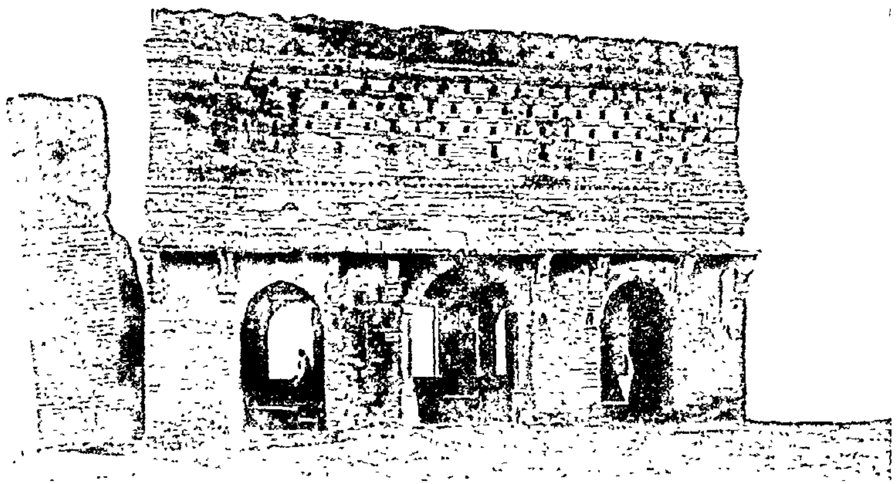
(e) Elephanta. Great Cave. The Trimūrti.

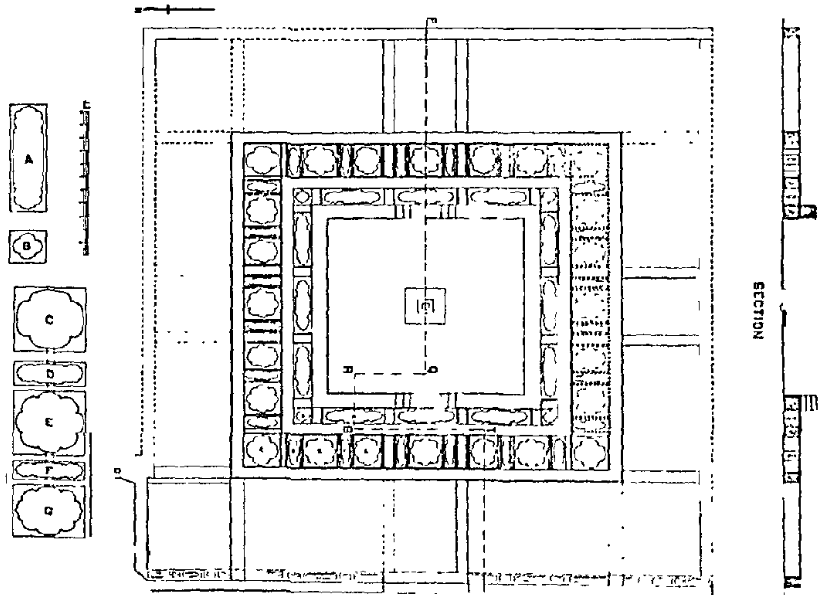


(a) Ahmedabad. Sidi Sayyid's Mosque, after restoration of compound wall.



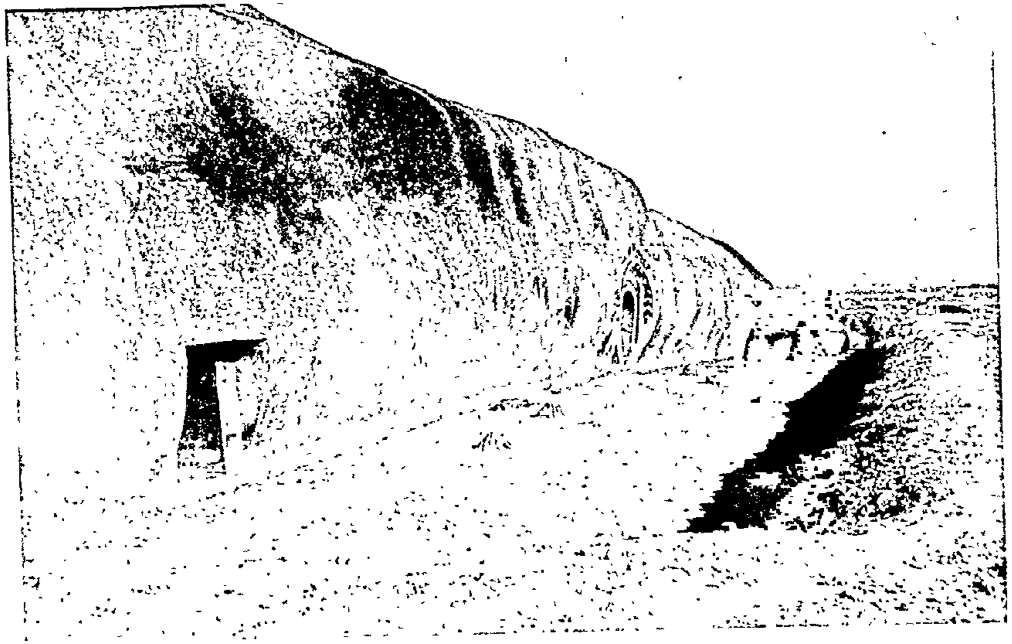
(b) Ranpur, District Ahmedabad. Āzam Khan's Palace, in course of conservation.



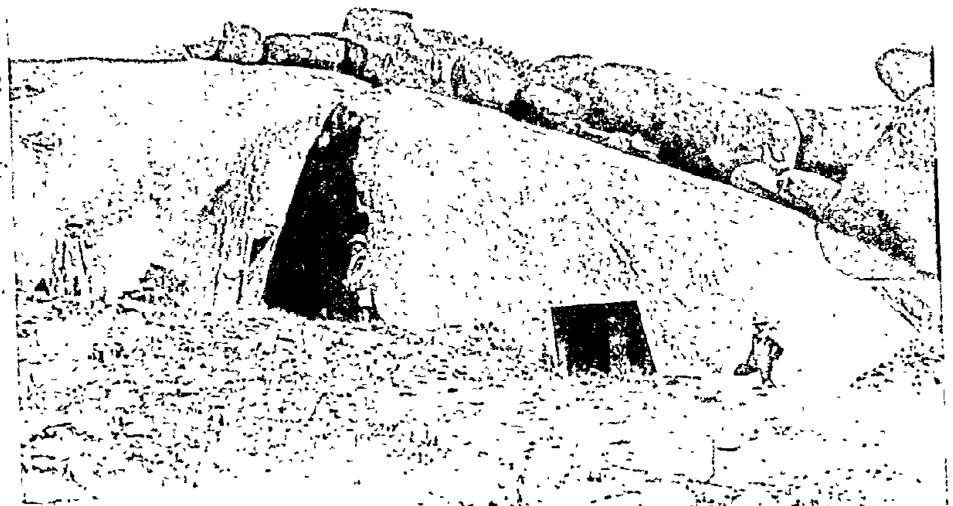


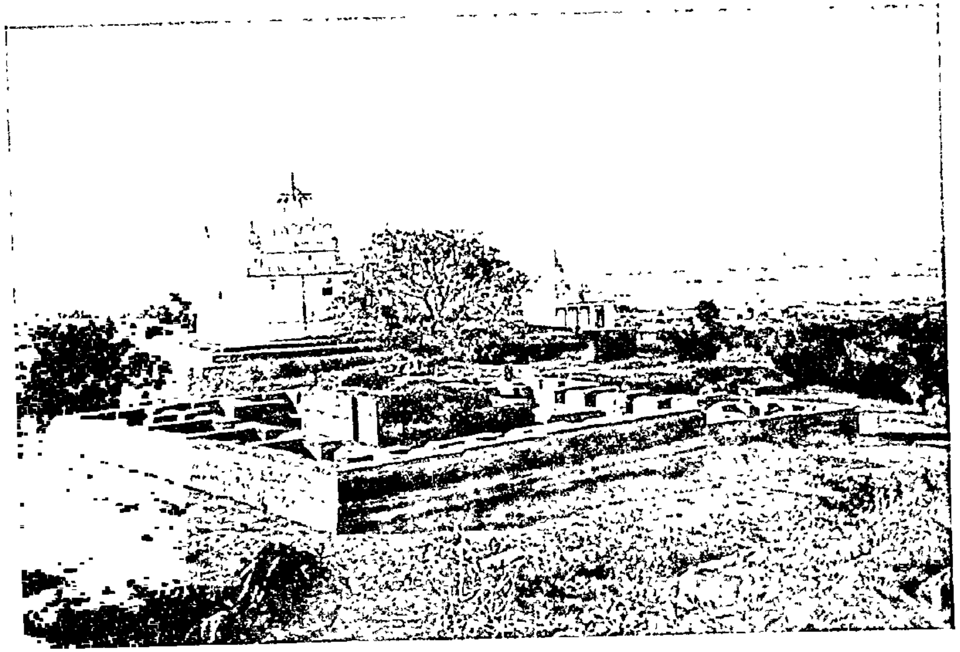


(a) Barabar Hills. Gaya District. Lomas Rishi Cave, before conservation.



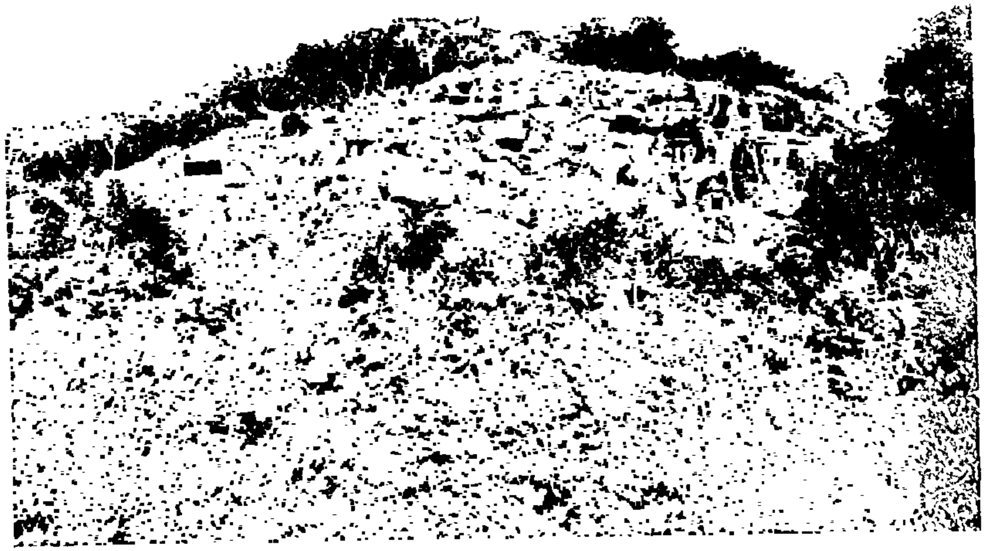
(b) Barabar Hills. Gaya District. Lomas Rishi Cave, after partial conservation.



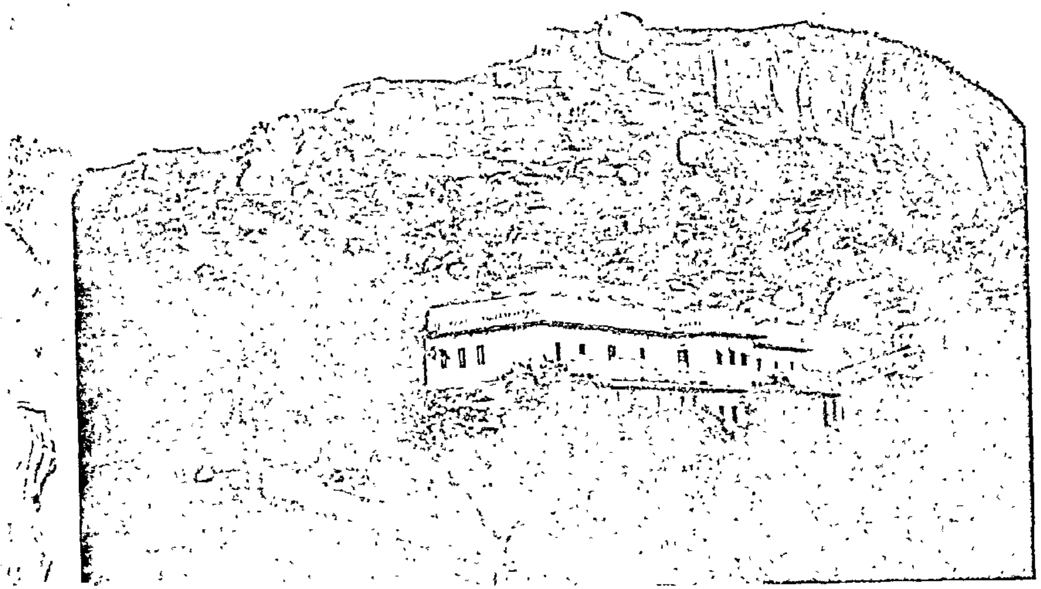


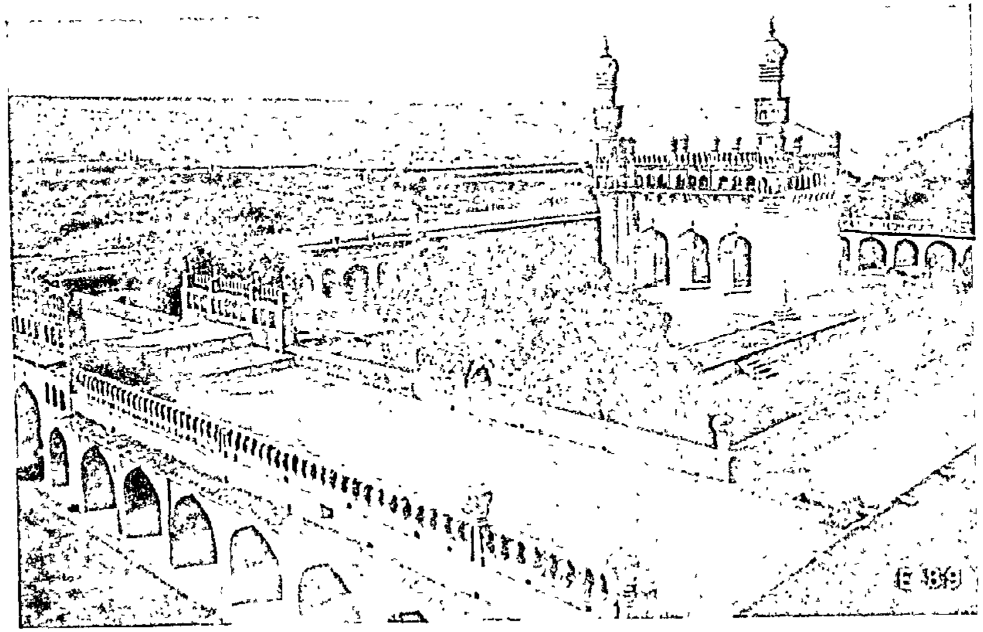


(a) Khandagiri. Puri District. The caves on the Khandagiri Hills with the modern Jain temple. General view from Udayagiri Hills after clearance.



(b) Khandagiri. Puri District. The upper caves on the Udayagiri Hills. General view from Khandagiri Hills after clearance.



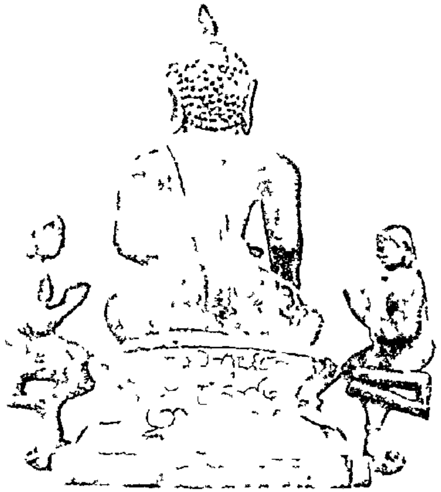




(*a*) Dholpur Jogni Jogni temple. View from north east.



(*b*) Pagan Seated Buddha with two disciples.



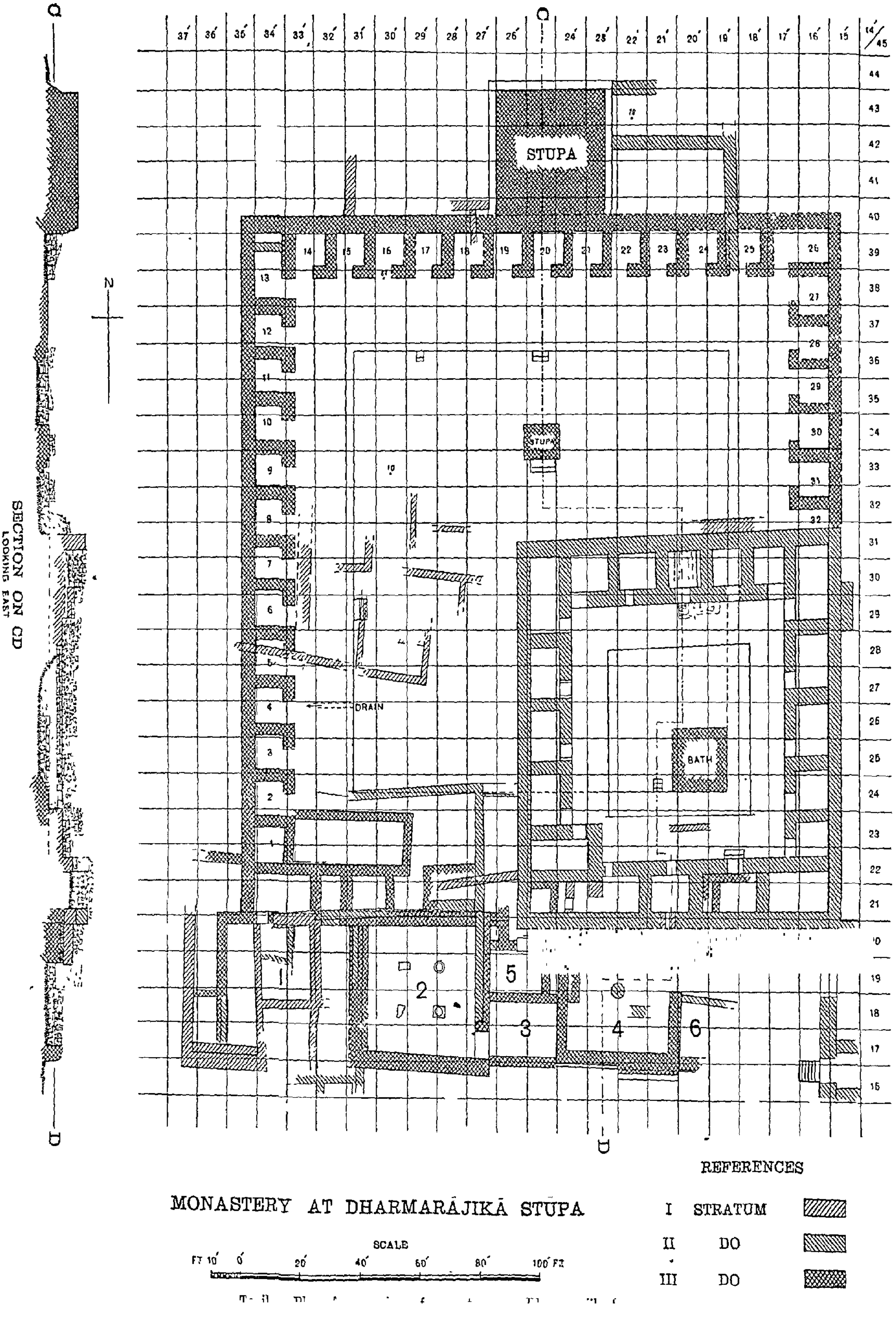
(*c*) Pagan Inscription on the back of the throne of the seated Buddha



(*d*) Pagan Another seated Buddha

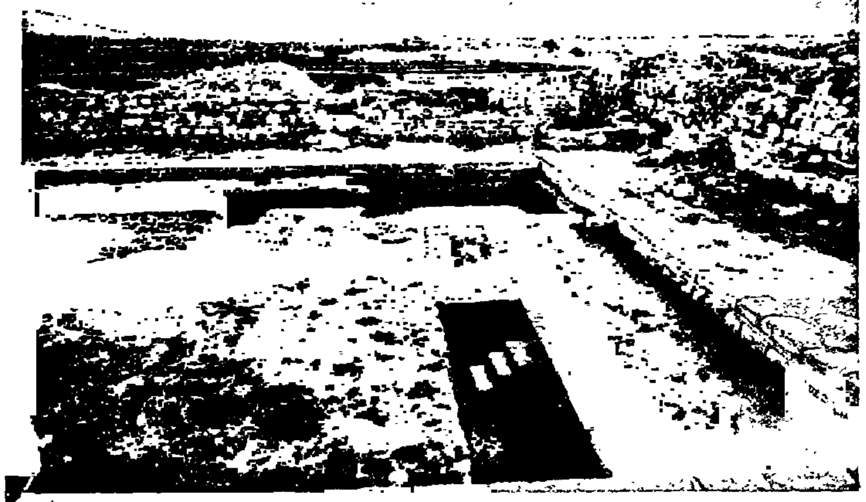
EXPLORATION.

EXCAVATIONS AT TAXILA
1935-36

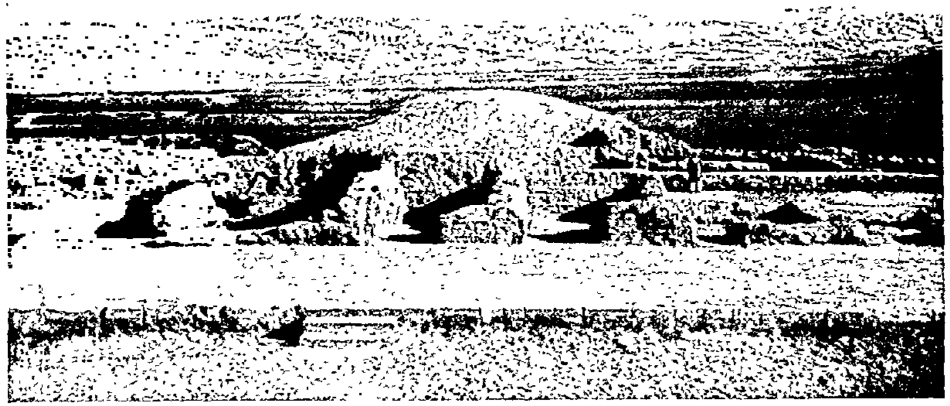


MONASTERY AT DHARMARĀJIKĀ STŪPA

PLATE X.



(a) Taxila. Dharmarājikā Stūpa Site. View of south east corner of main monastery showing early and late courts.



(b) Taxila. Dharmarājikā Stūpa Site. View of north row of cells in the main monastery, from south.



(c) Taxila. Dharmarājikā Stūpa Site. View showing north wall of late monastery above early court.



(d) Taxila. Dharmarājikā Stūpa Site. View of the main monastery showing earlier court of cells and later monastery.



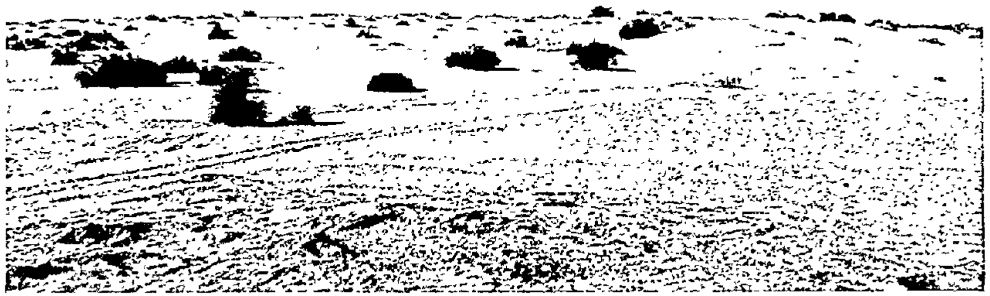
(*a*) Taxila. Stone image of Vishnu.



(*b*) Taxila. A stucco head.



(*c*) Dijī-ji-tākri. (Khairpur State). General view of the ancient site from south west.



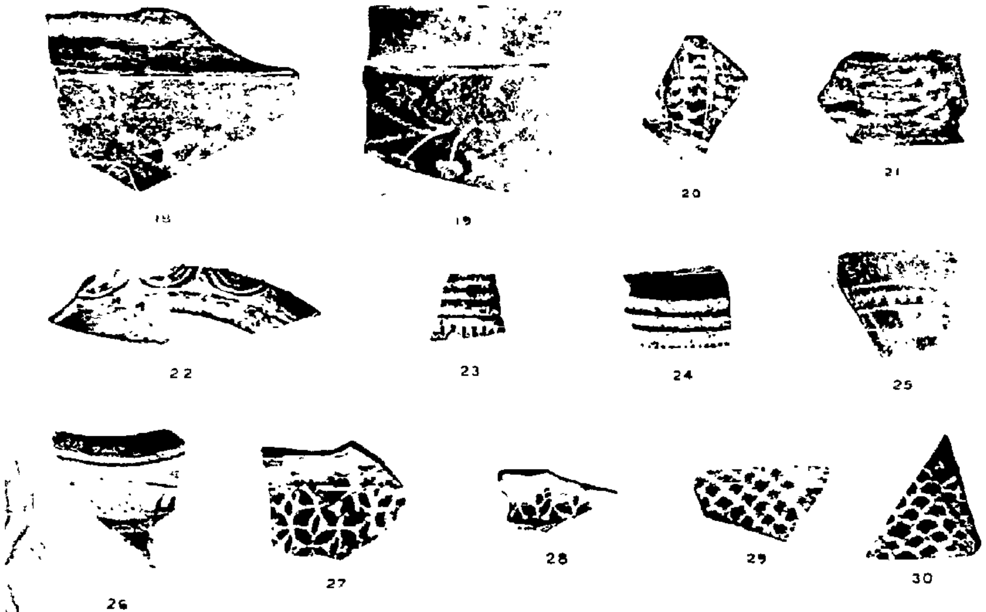
(*d*) Kotasur. (Khairpur State). Ruins on sand-hills. General view of ancient site from south east.



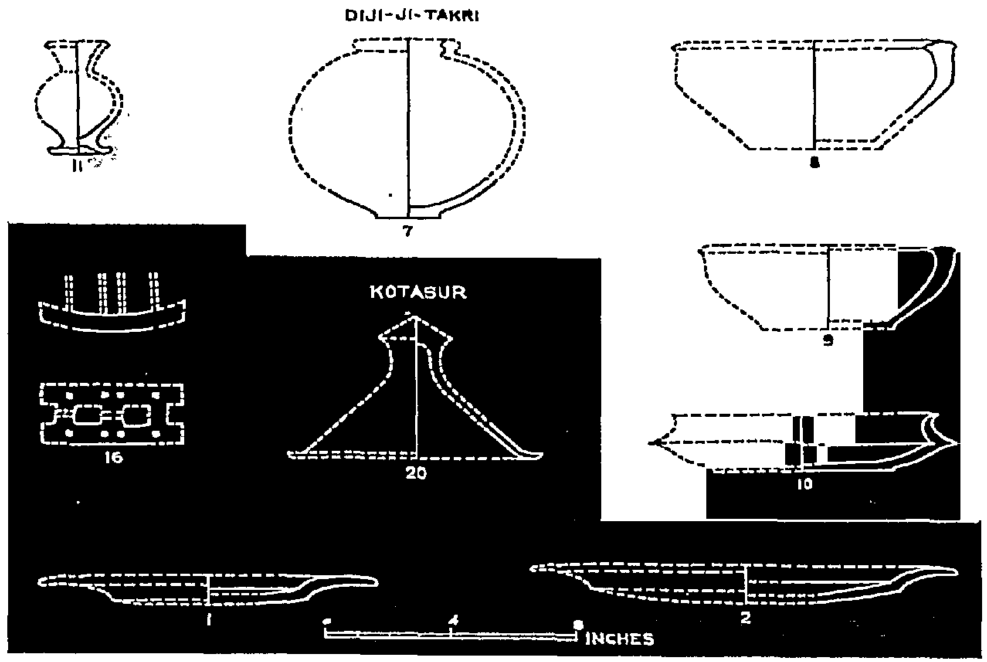
(a) Diji-ji-tākri. (Khairpur State) Terracotta and stone antiquities from surface.



(b) Kotasur (Khairpur State). Terracotta and stone antiquities from surface



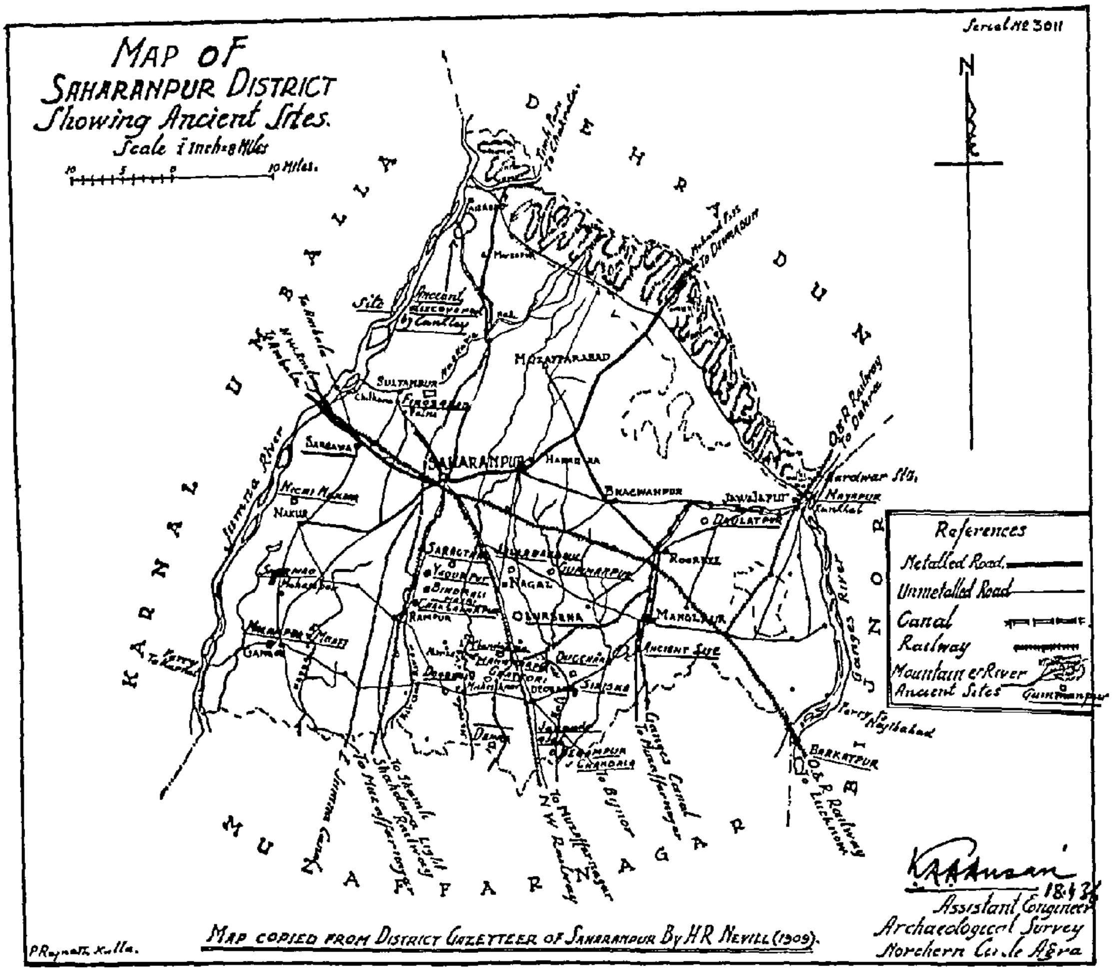
(c) Kotasur. (Khairpur State). Painted potsherds from surface



(d) Conjectural restoration of certain pottery objects

PLATE XII.

Photo-Litho Office Survey of India



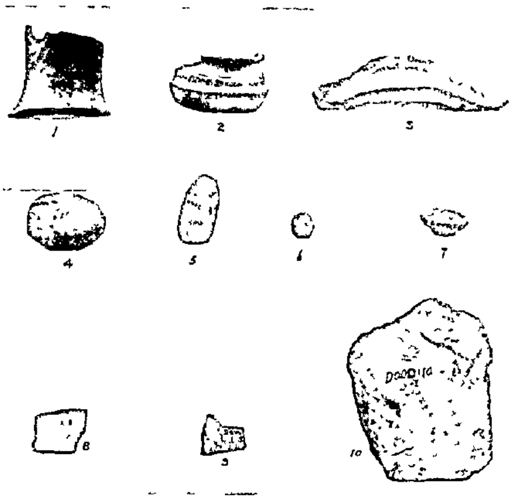
(a) Map of Saharanpur District showing the position of ancient sites.



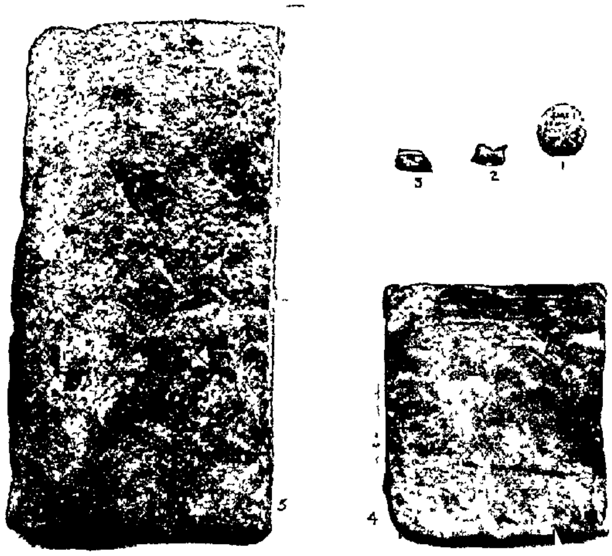
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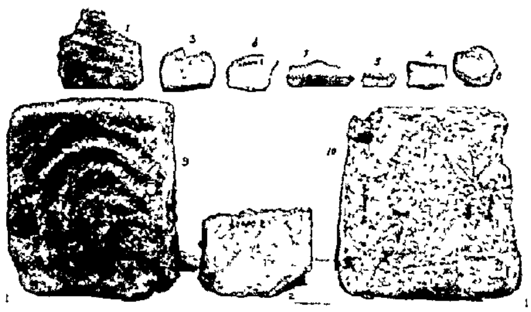
(*a*) Barmih-kā-kherā, near Barkatpur, District Bijnor. Antiquities.



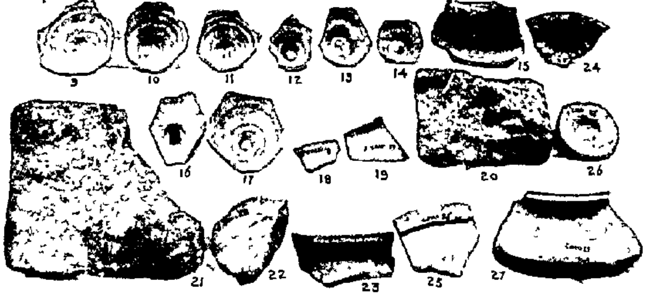
(*c*) Doodhli. District Saharanpur. Antiquities.



(*b*) Surasena. District Saharanpur. Antiquities.



(*d*) Dandauli. District Saharanpur. Antiquities.



(*e*) Begampur. Chakdara. District Saharanpur. Antiquities.



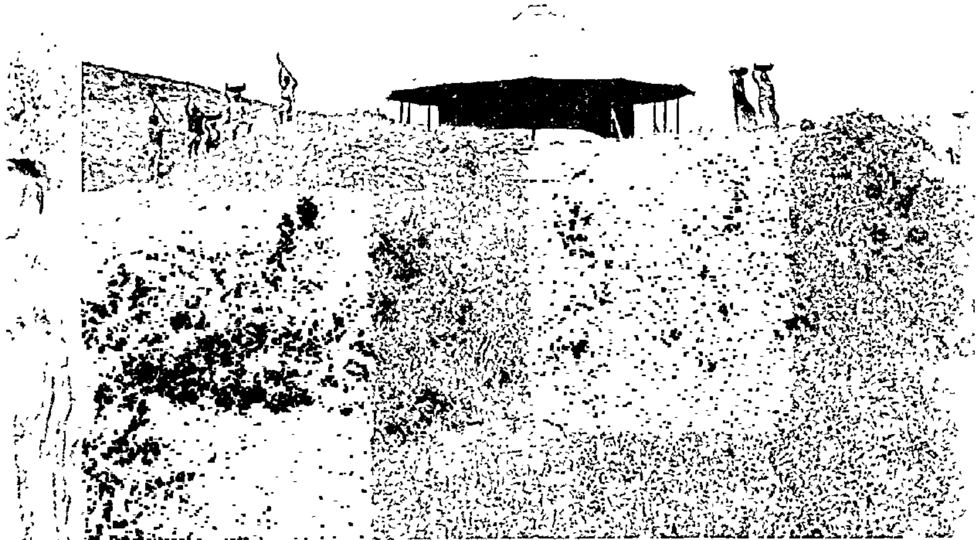
(*f*) Sarn... l. District ...



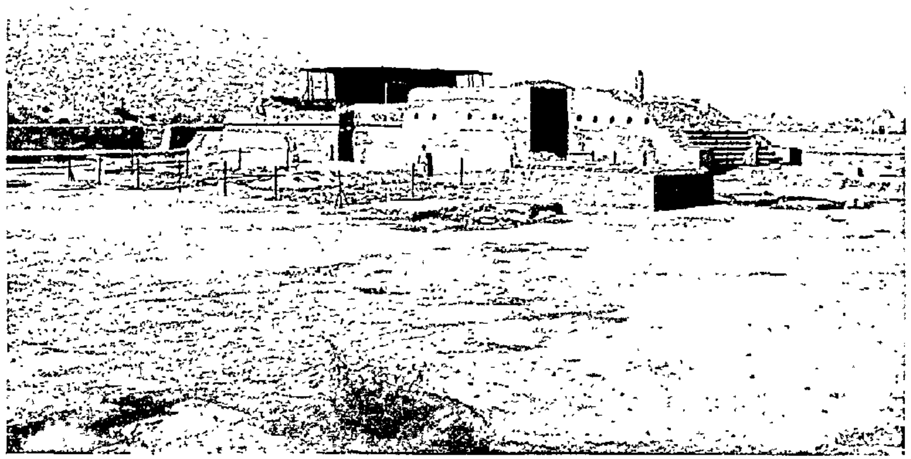
(a) Rājgir. Maniyar Math. General view before excavations. Photograph taken in 1905-06.



(b) Rājgir. Maniyar Math. General view showing excavations in 1908-09.



(c) Rājgir. Maniyar Math. General view during further excavations in 1932-33.



(d) Rājgir. Maniyar Math. General view after the excavations in 1935-36.



(*a*) Rājgir. Maniyar Math. East side showing large numbers of pottery vases etc. *in situ*.



(*b*) Rājgir. Maniyar Math. A selection of pottery finds now preserved at Nālandā.



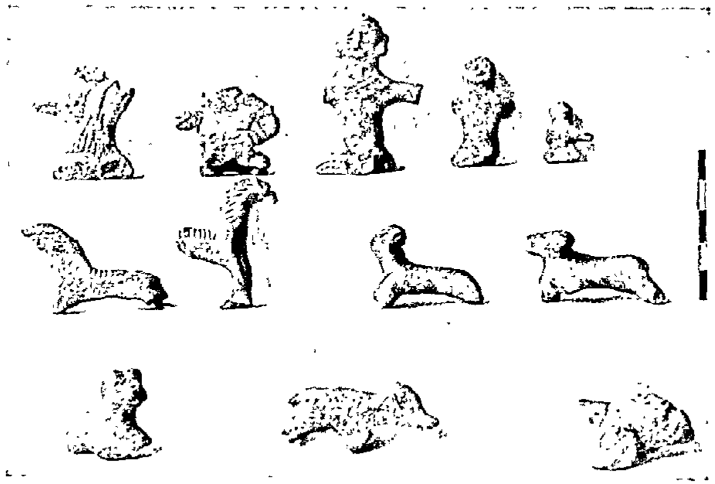
(*c*) Rājgir. Maniyar Math. A group of pottery vessels showing different types of spouts.



(*d*) Rājgir. Maniyar Math. Terracotta



(*e*) Rājgir. Maniyar Math. Terracotta vessel with numerous spouts and a band



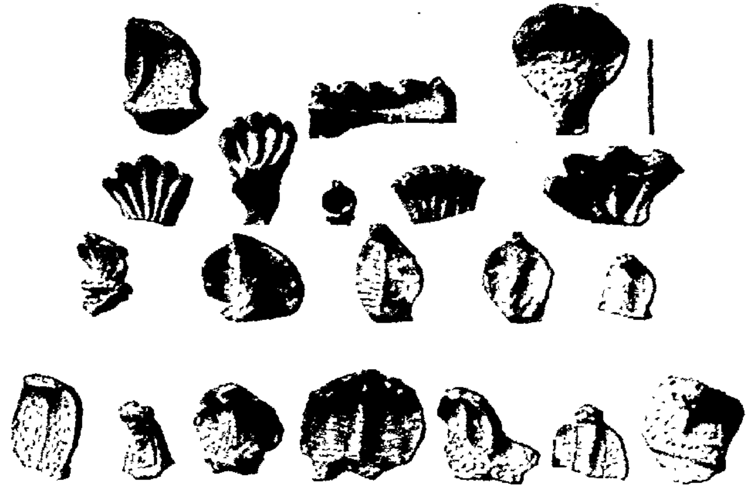
(*f*) Rājgir. Maniyar Math. Group of terracotta human and animal figurines now preserved at Nālandā.



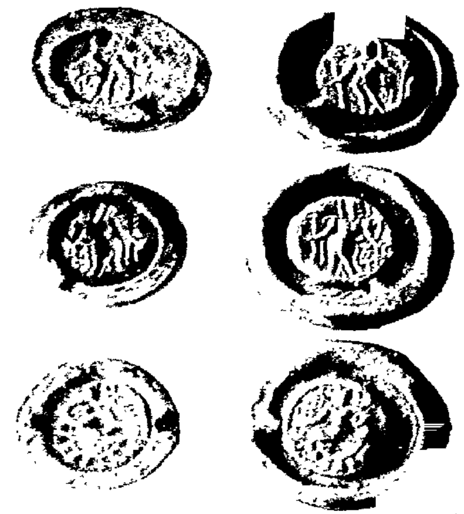
(a) Rājgir. Maniyar Math. Slightly burnt clay loops.



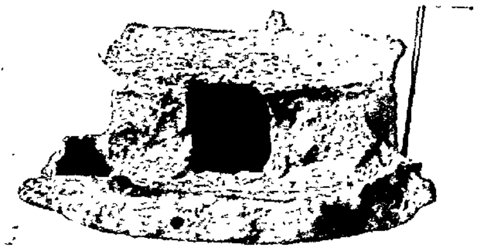
(b) Rājgir. Maniyar Math. Terracotta toy head of winged bull.



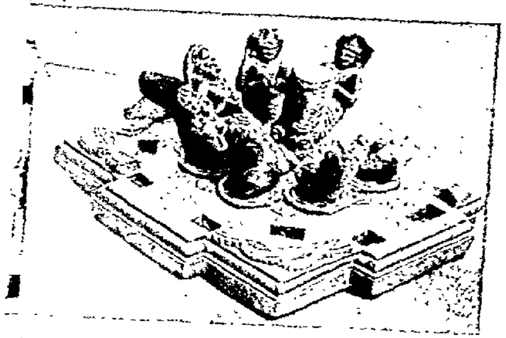
(c) Rājgir. Maniyar Math. Group of varieties of terracotta cobra hoods forming the necks of terracotta vessels.



(d) Nālandā. 3 clay moulds for casting coins.



(e) Rājgir. Maniyar Math. Terracotta house with gabled roof within an enclosure.



(f) Nālandā. Group of stone images of Nagas on a stone *pedestal*.



(g) Rājgir. Vaibhara Hill. Stone sculpture in a niche of a Jain temple.



(h) Nālandā. Stone image of seated Buddha in bhumi-sparsa mudra.

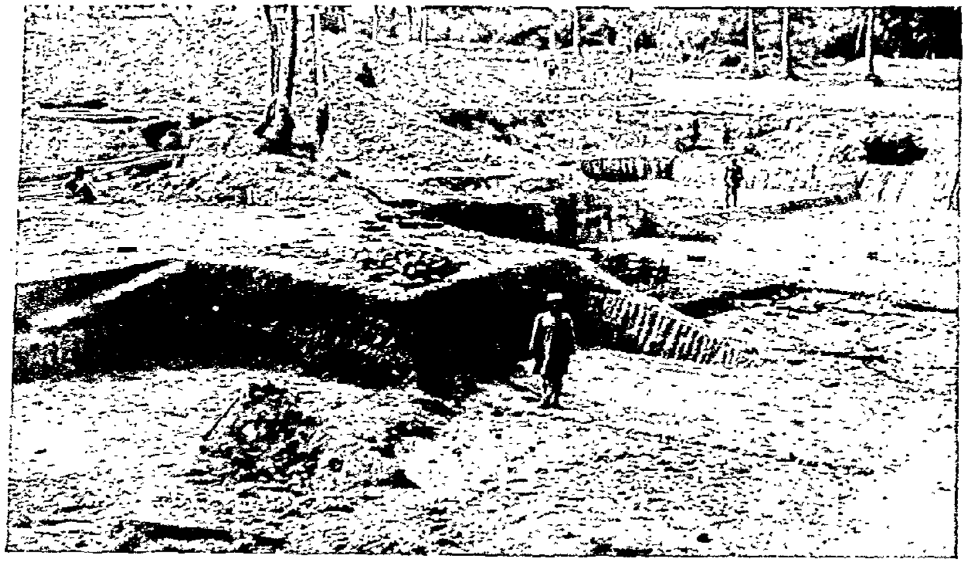
oto.-Litho. Office, Survey of India.



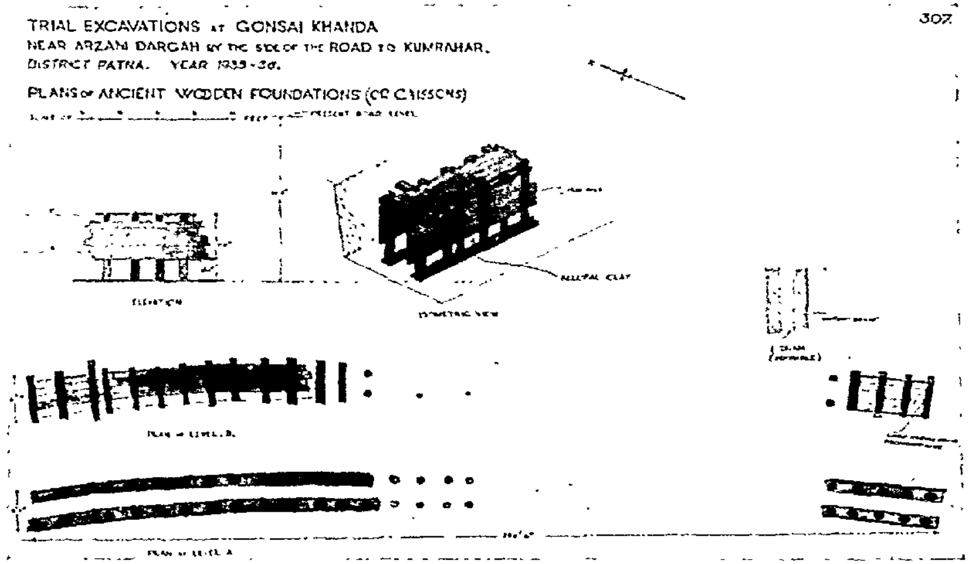
(a) Nālandā. Site No. 13, before excavation. View from south east.



(b) Nālandā. Site No. 13, general view during excavation and conservation from south east.



(c) Patna. Gonsaikhanda. (Sandalpur). Ancient wooden foundations, after trial excavation.



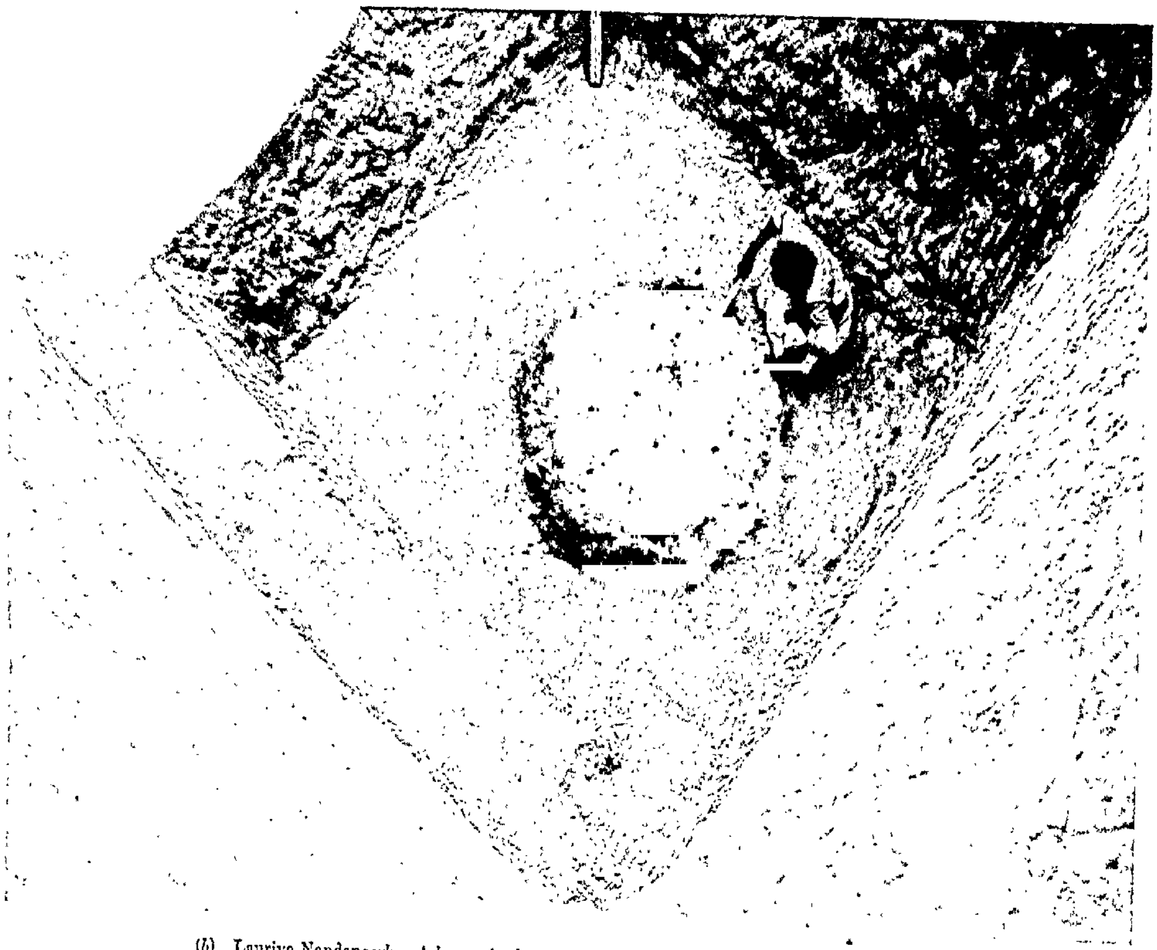
(d) Patna. Gonsai Khanda. (Sandalpur) Plan and elevation of ancient wooden foundations.

Photo.-Litho. Office, Survey of India

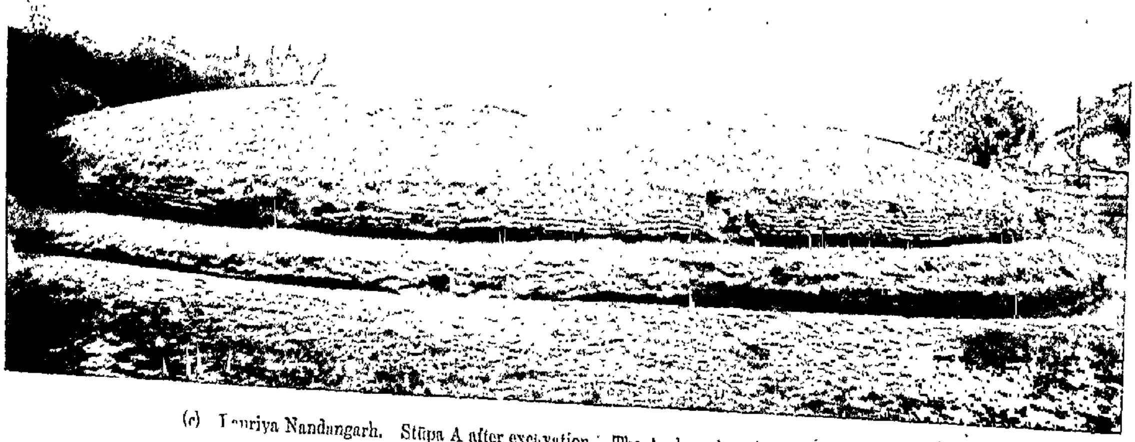
PLATE XVIII.



(a) Lauriya Nandangarh. Corporeal relics from Stūpa A.



(b) Lauriya Nandangarh. A layer of ashes and charcoal in which corporeal relics were found.



(c) Lauriya Nandangarh. Stūpa A after excavation. The Asoka column is seen in the distance.



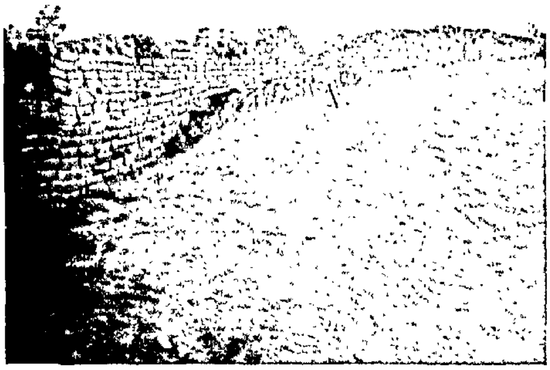
(a) Lauriya Nandangarh. Excavation at base of Main Mound from west.



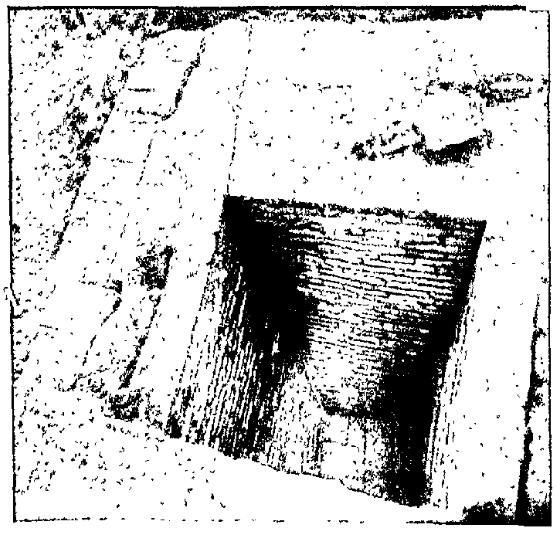
(b) Lauriya Nandangarh. Top of Main Mound showing circular wall and trench.



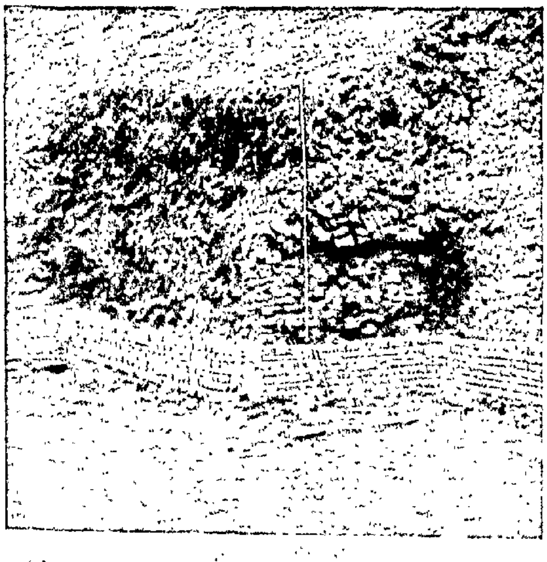
(c) Lauriya Nandangarh. Excavations at base of Main Mound; from south west.



(d) Lauriya Nandangarh. Top of Main Mound showing details of circular wall.



(e) Lauriya Nandangarh. Cess-pit at the foot of Main Mound.



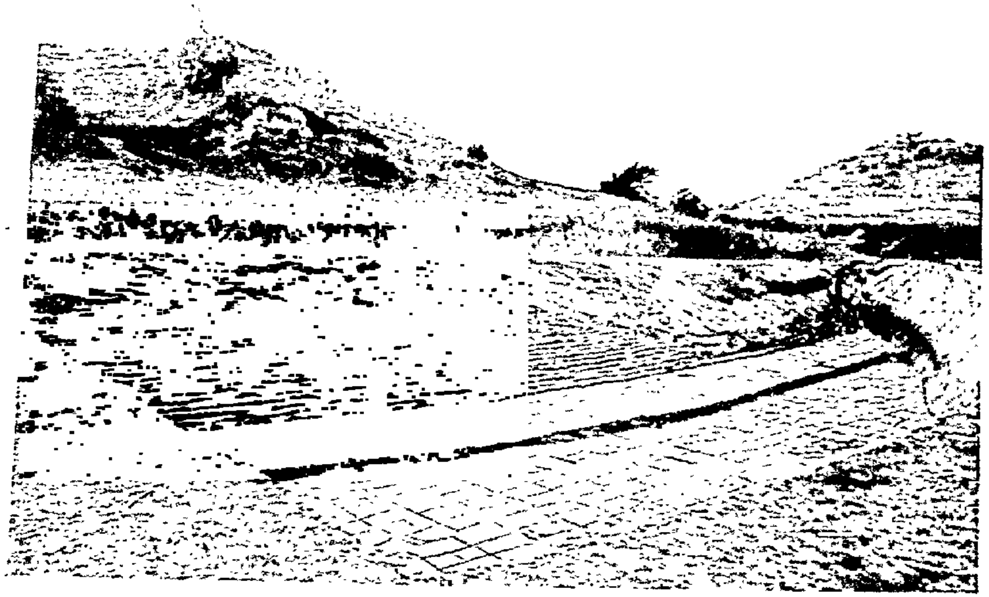
(f) Lauriya Nandan[illegible] [illegible]ment in [illegible]



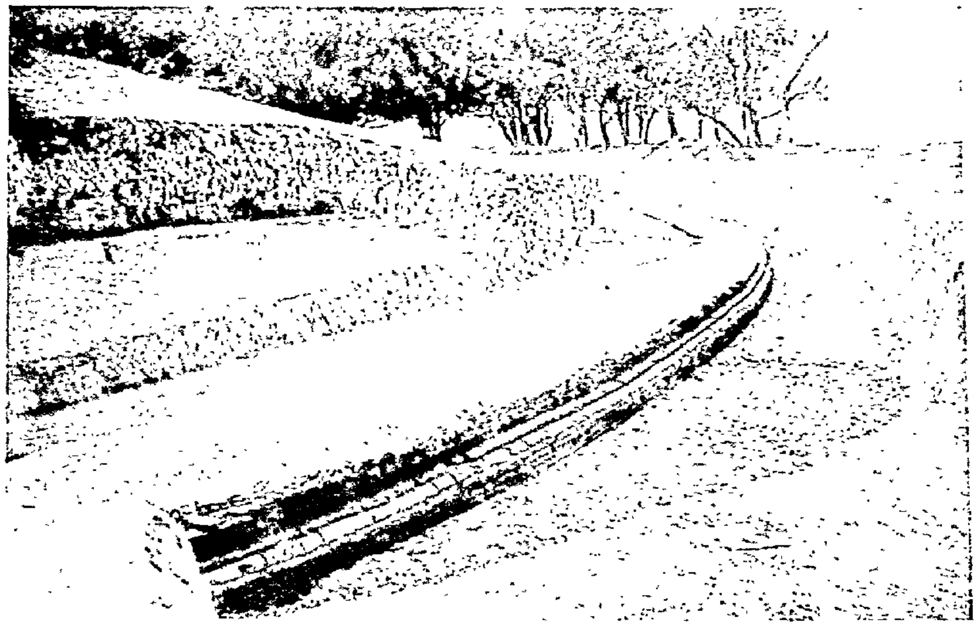
(*a*) Lauriya Nandangarh. Mound N showing the position of Bloch's trench on top and Majumdar's trench below.



(*c*) Lauriya Nandangarh. Stūpa O after clearance.



(*b*) Lauriya Nandangarh. Mound N showing structural remains discovered below Bloch's trench.



(*d*) Lauriya Nandangarh. Mound B showing part of circular wall after excavation.

Photo.-Litho. Office, Survey of India

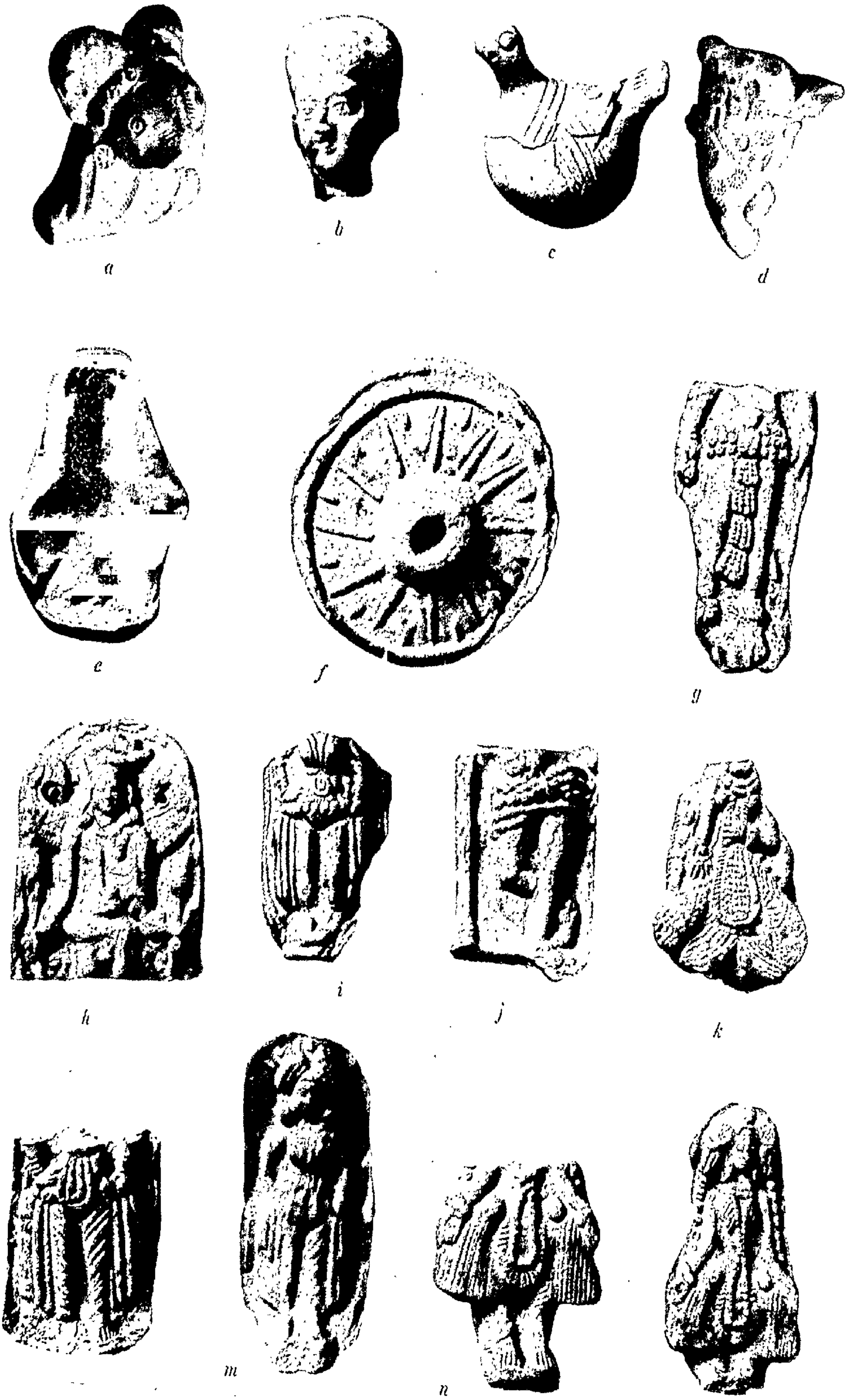
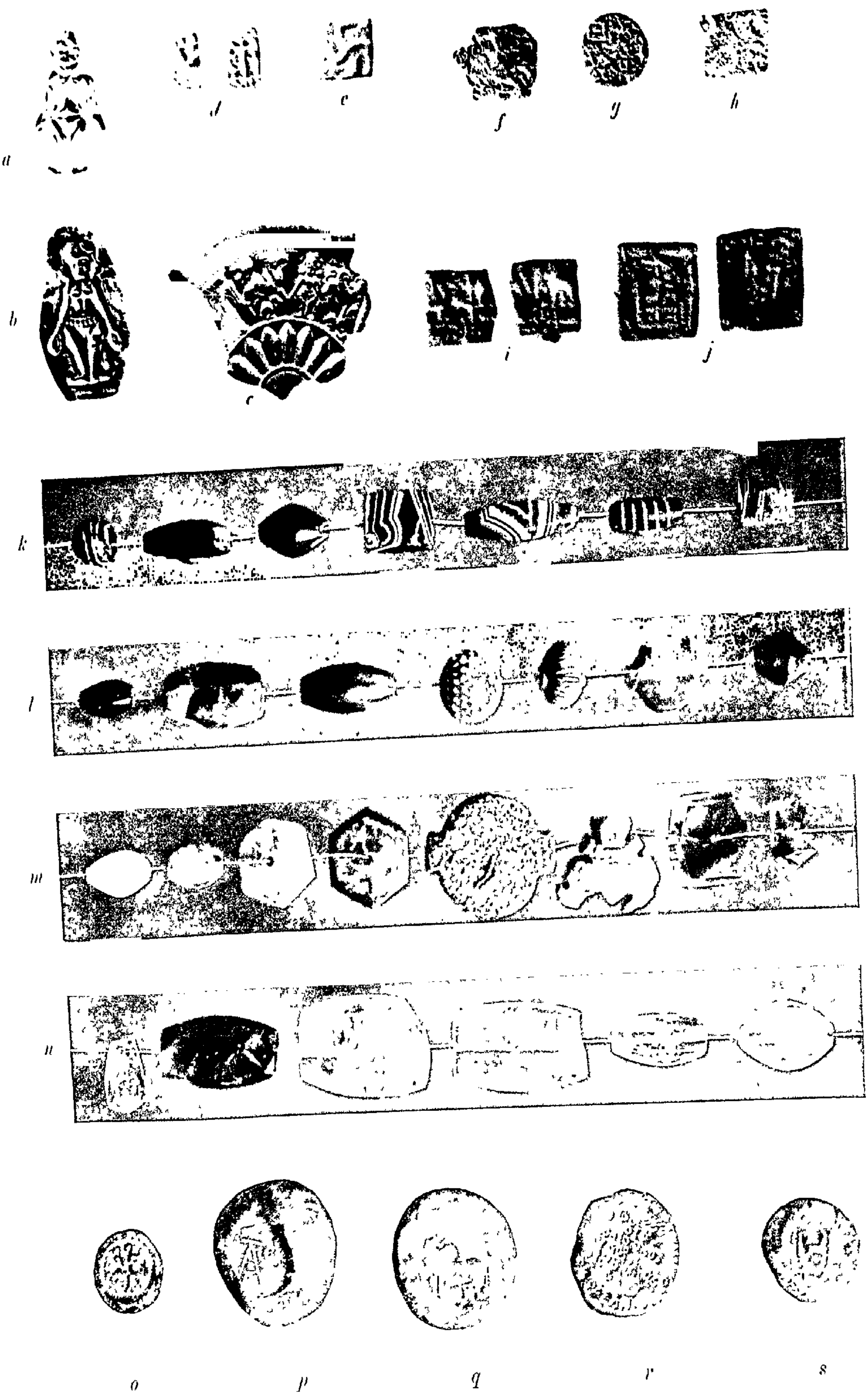


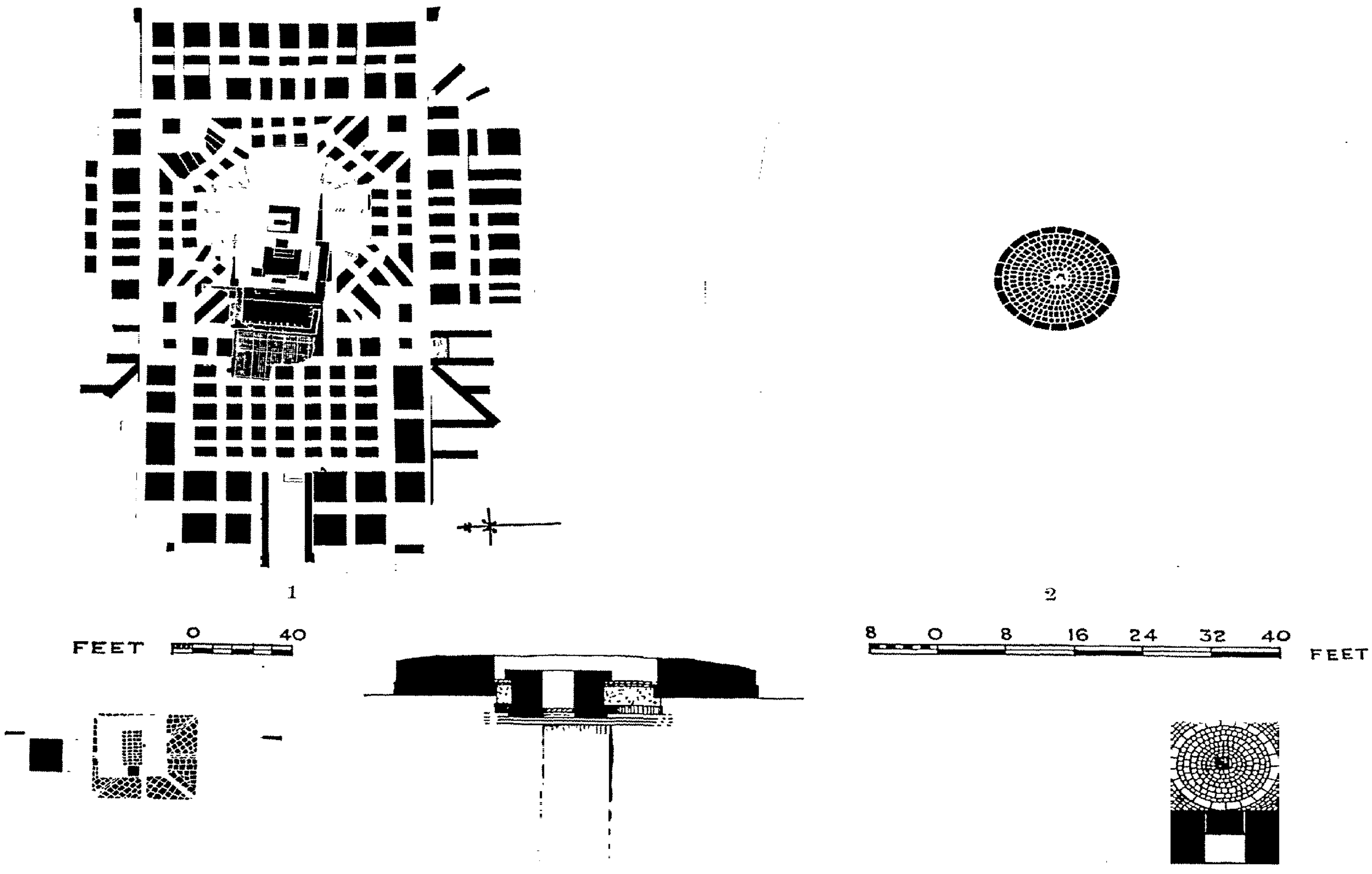
Photo.-Litho. Office, Survey of India

Lauriya Nandangarh. Miscellar on t

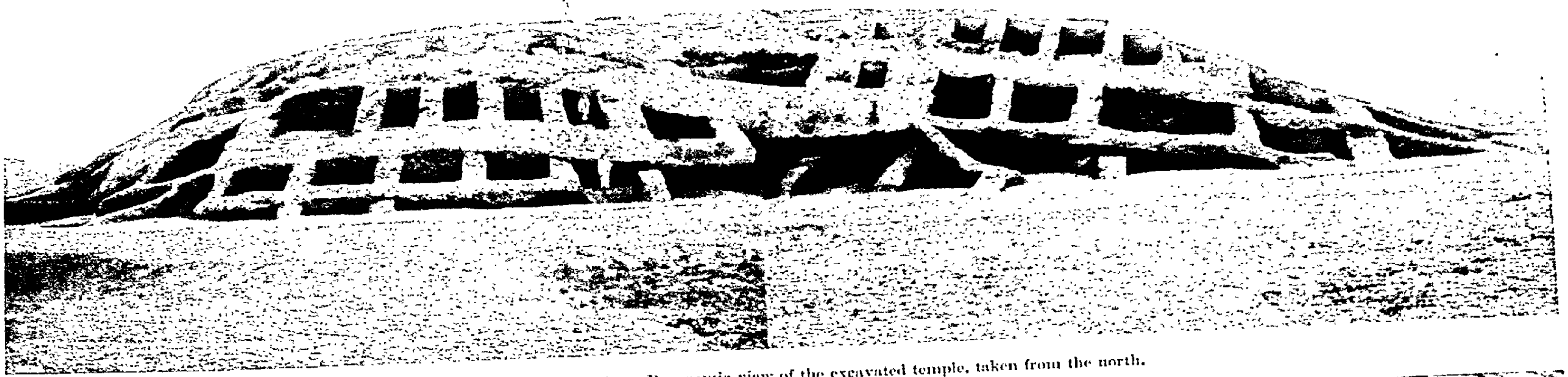
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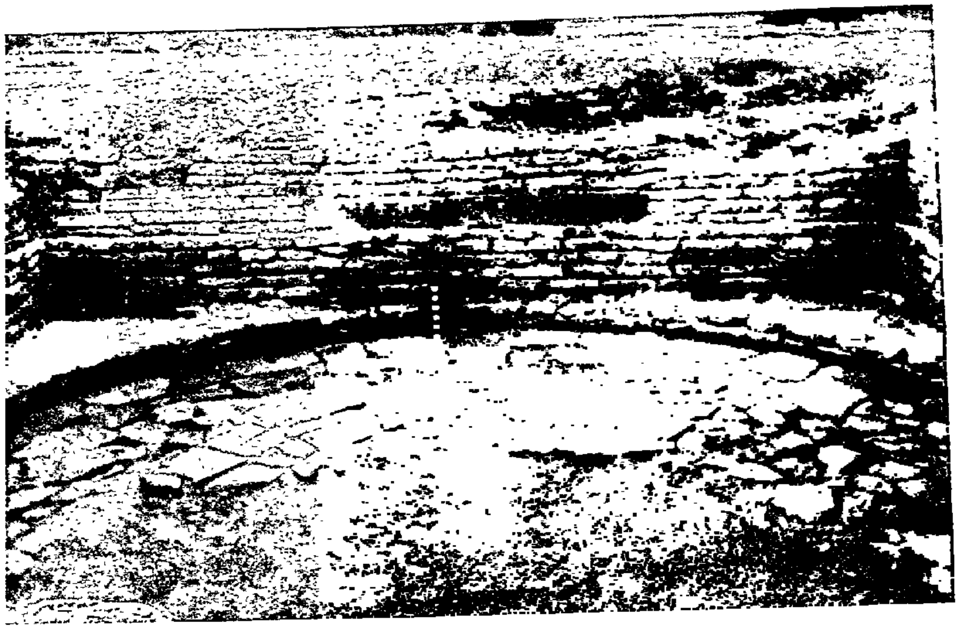
a. Gold leaf from Piprawah. *b.* Gold leaf from Lauriya. *c.* Fragments of stone ring from Math[illegible]
d—j. Coins from Lauriya and Nandangarh. *k—n.* Miscellaneous beads from Nandan[illegible]



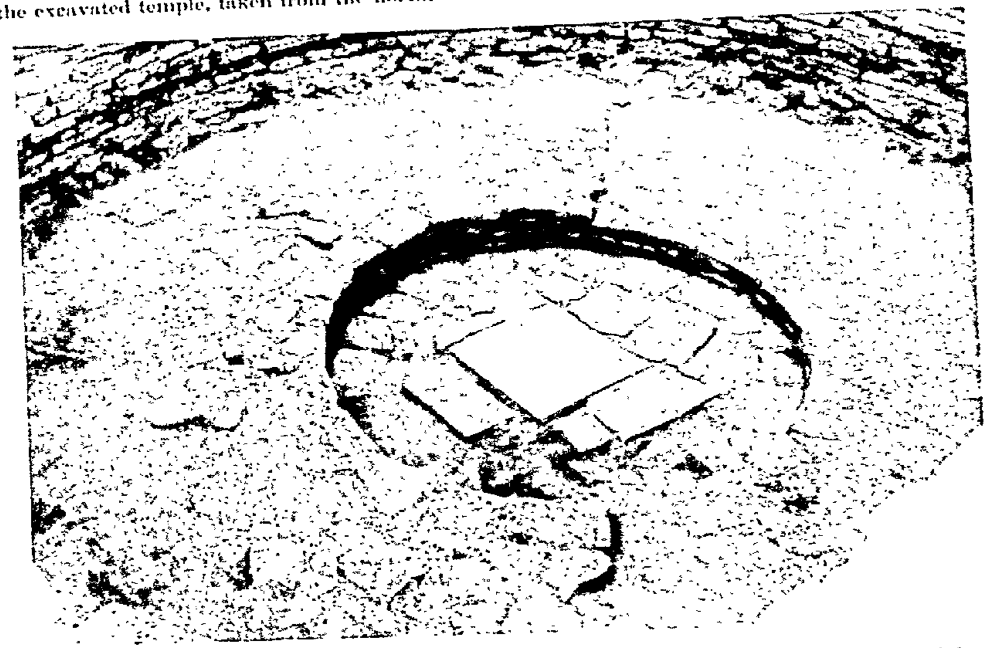
Gokul. Bogra District. 1. General plan of excavations. 2. Plan of shrine. 3. Plan of central chamber before dismantling of cell. 4. Section of central chamber. 5. Plan of central chamber as finally exposed.



(*a*) Gokul. Bogra District. Panoramic view of the excavated temple, taken from the north.



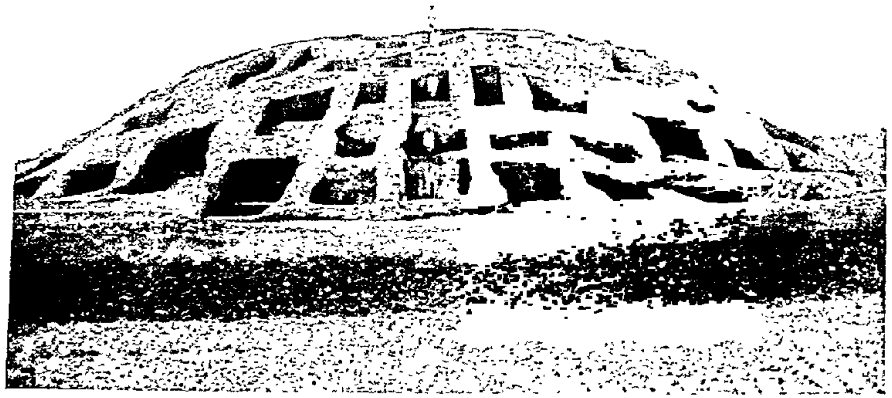
(*b*) Gokul. Bogra District. A view of the central chamber after dismantling a cell of the latest period.



(*c*) Gokul. Bogra District. Another view of the central chamber showing a stone slab with a gold leaf inset, in situ.

Photo.-Litho. Office, Survey of India.

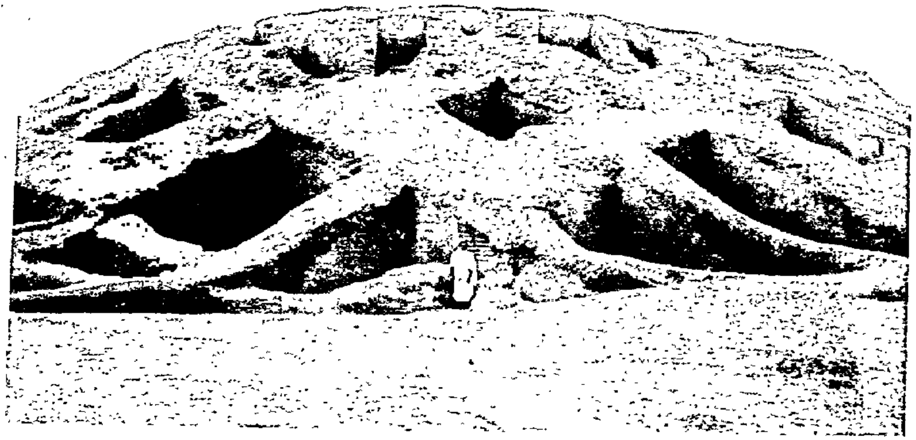
PLATE XXVI.



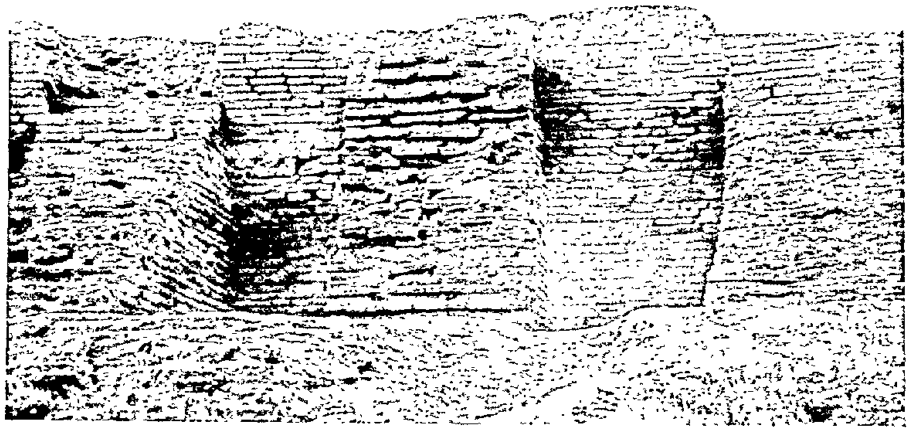
(*a*) Gokul. Bogra District. View of the temple.



(*b*) Gokul. Bogra District. View of temple from north west, showing ruined staircases on top.

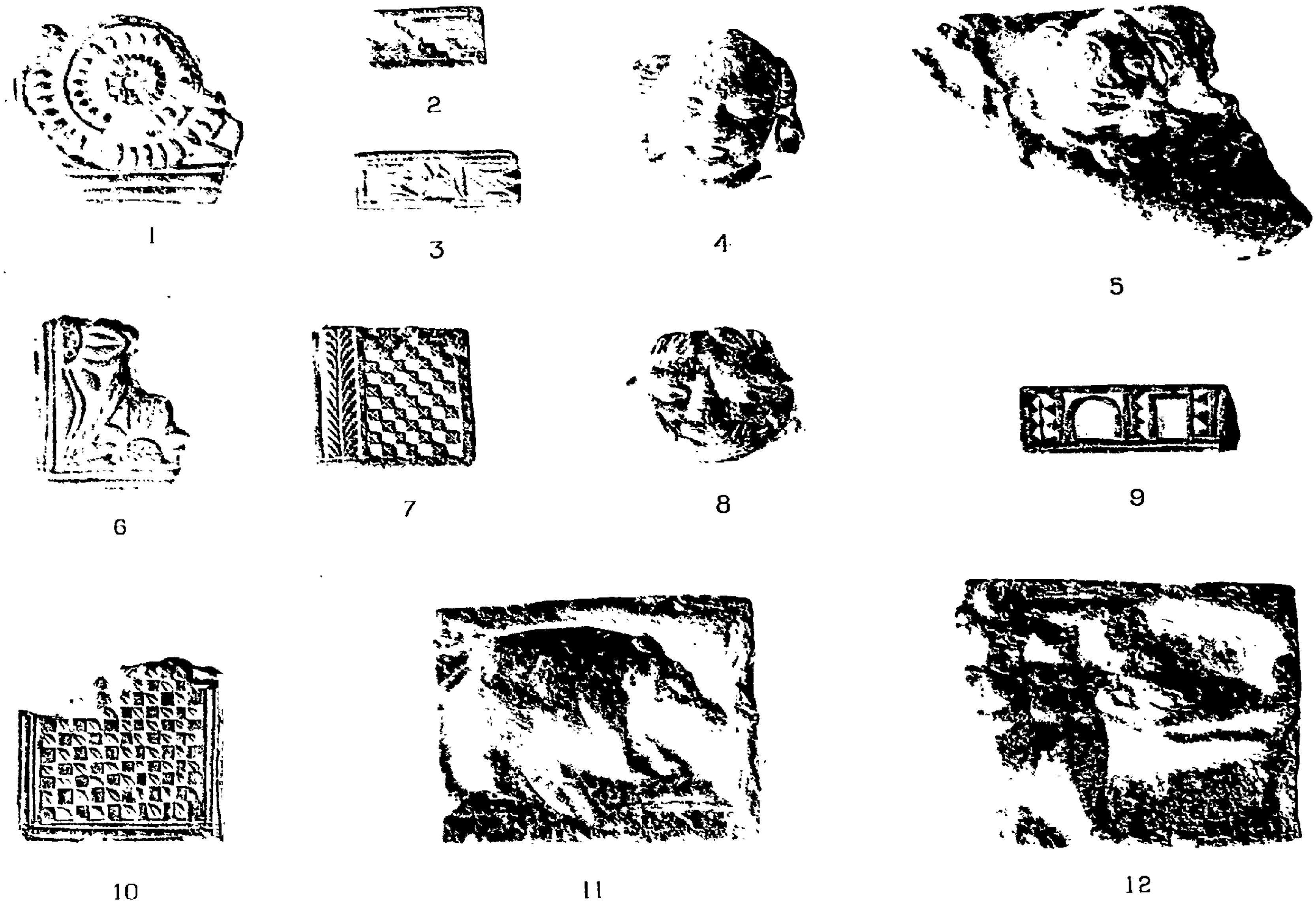


(*c*) Gokul. Bogra District. View of the temple from south east.



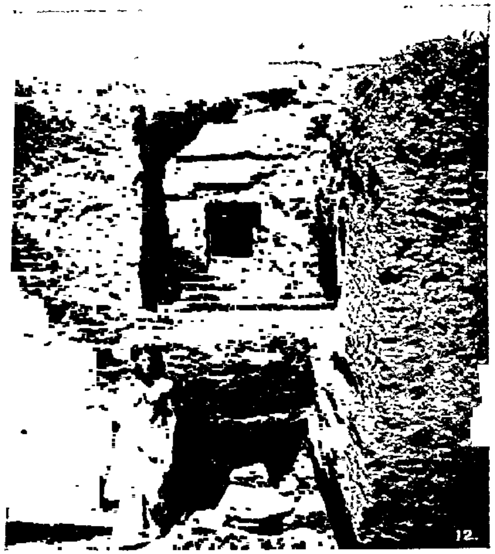
(*d*) Gokul. Bogra District. A closer view of the ruined staircases.

Photo.-Litho. Office, Survey of India.



Gokul Bogra District Terracotta plaques

Photo Litho Office Survey of India



(a) Chiratat Hill. Makkada Desam. Malabar District. Rock-cut cave on the southern slope.



(b) Chiratat Hill. Makkada Desam. Malabar District. Rock-cut cave on the southern slope.



(c) Pechiparai. Chokkampatti, Tinnevelly District. Detail of shrine entrance and dvārapālas in the unfinished rock-cut cave.



(d) Pechiparai, Chokkampatti, Tinnevelly District. Unfinished rock-cut cave.



(e) Sendamaram, Tinnevelly District. Rock-cut cave temple and stone Nandi at the foot of the Veerasigamani hill.

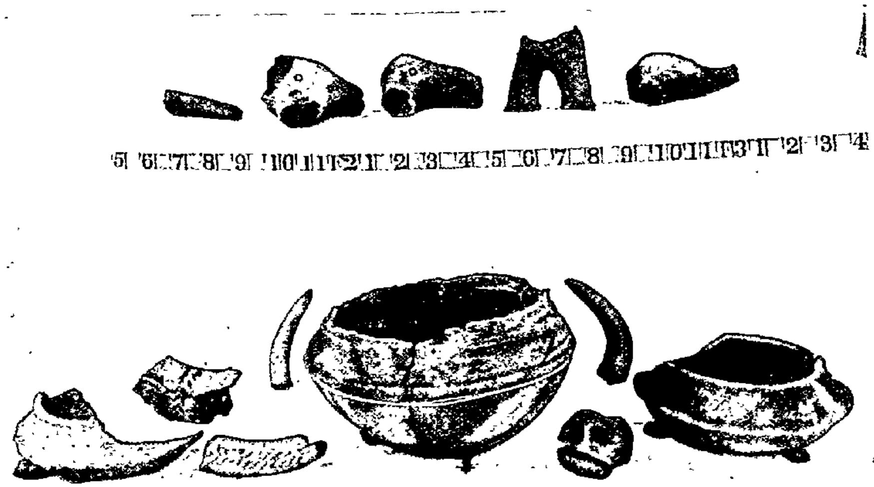
PLATE XXIX.



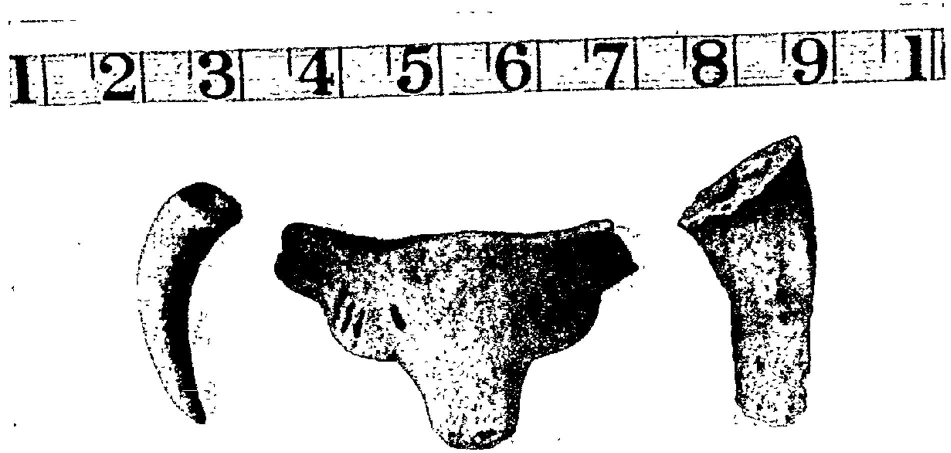
(*a*) Kadayanallūr, Tinnevelly District. Interior of the Sampakavalli temple.



(*b*) Nanjundapuram, Coimbator District. A cromlech.



(*c*) Cairn hill, Fern Hill, Nilgiri District. Prehistoric earthenware pots etc.



(*d*) Cairn hill, Fern Hill, Nilgiri District. Prehistoric clay model of cow's head, horn and leg.

Photo.-Litho. Office, Survey of India.



(a) Siyyamangalam North Arcot District. Stone relief of Durga Lakshmi in the Stambhesvara temple enclosure.



(b) Nandalur, Cuddapah District Memorial stones of heroes found near the railway line.



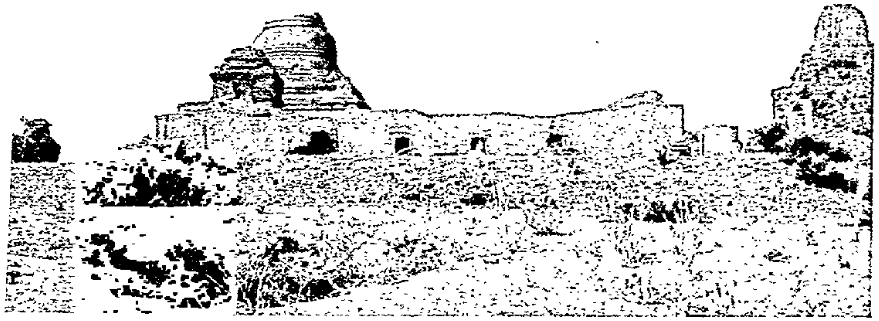
(c) Nagarjunakonda Guntur District A female figure at the end of the sculptured beam D



(d) Nagarjunakonda Guntur District Detail of a female figure at the end of the sculptured beam F



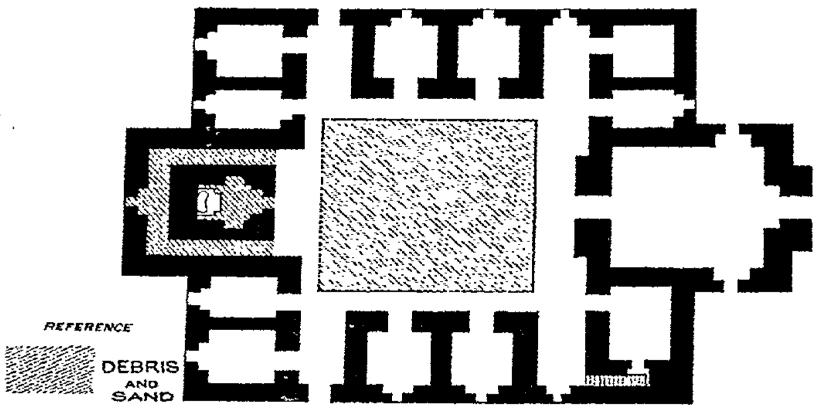
(e) Nagarjunakonda. Guntur District Detail of a female figure at the end of the sculptured beam E.



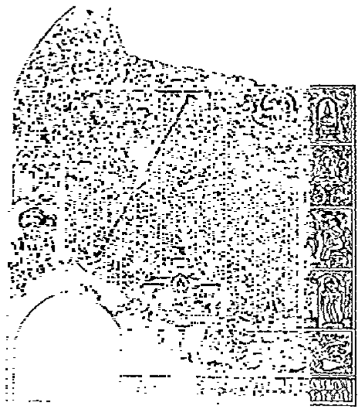
(*a*) Myinpagan. Remains of an old monastery south of the Somingyi Pagoda.



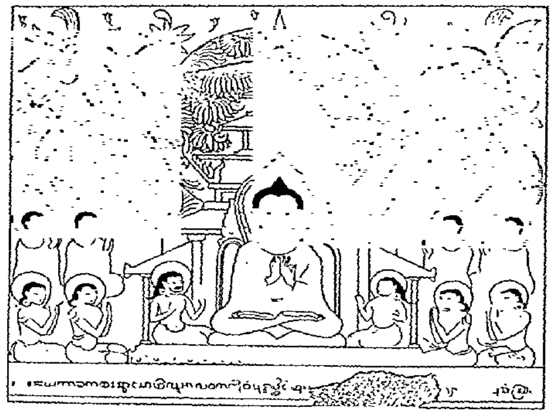
(*b*) Myinpagan. Mahamaya. A sketch of a painting on a wall of the Abeyadana temple.



(*c*) Myinpagan. Plan of the remains of an old monastery south of the Somingyi Pagoda.



(*d*) Pagan. Buddha's descent from Tavatimsa Heaven: From a drawing of the painting on a wall of a small temple north of the Thiyipyitsaya village.

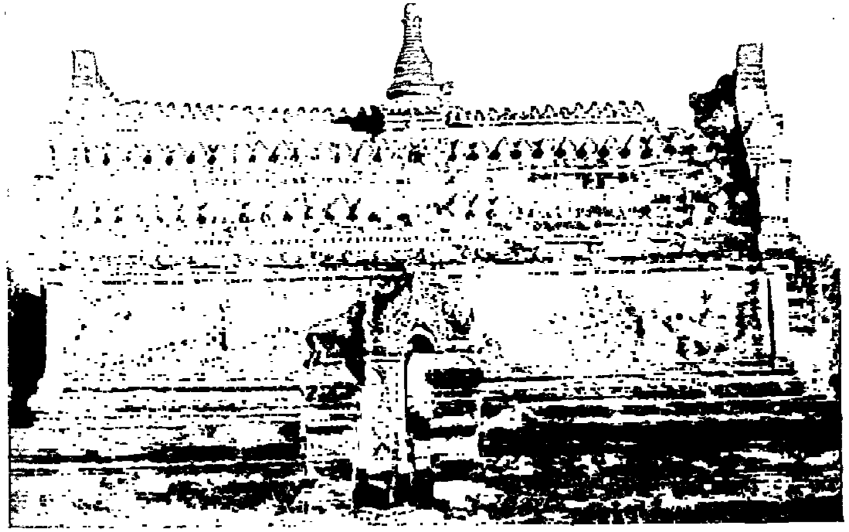


(*e*) Pagan. Buddha's Conversion of ogre Alavika: From a drawing of the painting on a wall of the Sayambhu temple.

hoto.-Litho. Office, Survey of India



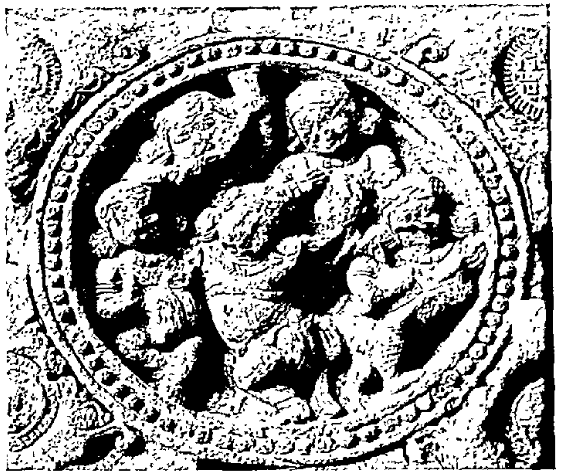
(a) Pagan. Painting on a wall of the Upali Thein (Sima) showing Prince Siddhartha's renunciation of the world.



(c) Pagan. The Upali Thein (Sima).



(b) Pagan. Painting on a wall of the Upali Thein (Sima) showing an ecclesiastical ceremony.



(d) Kyontu, Pegu District. A terracotta plaque.



(e) Myogale near Pagan. A figure of Jambupati.

EXPLORATION.



(a) Sanchi. Bhopal State. General view of the monastery taken from the north east.

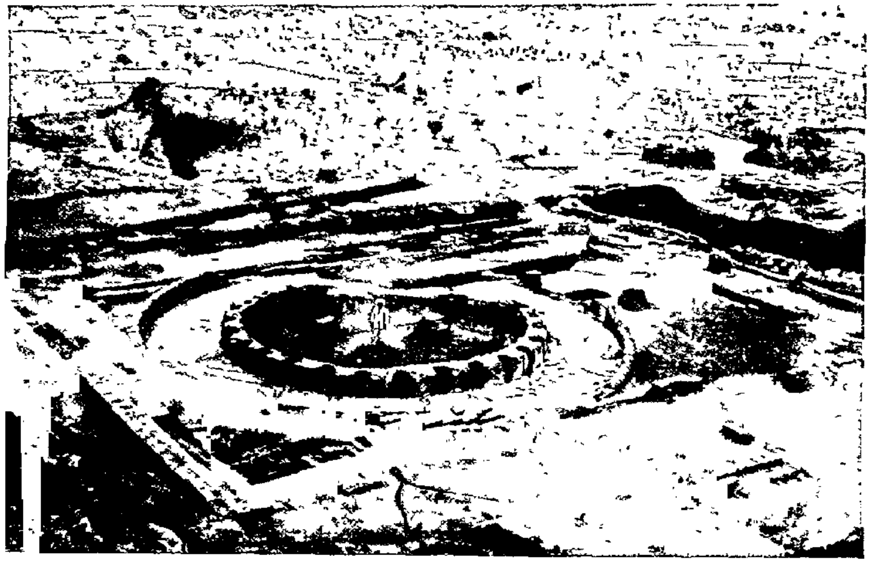


(b) Ujjain. Mahākāl Temple. Image of Vishnu.



(c) Ujjain. Four sided image of Vishnu.

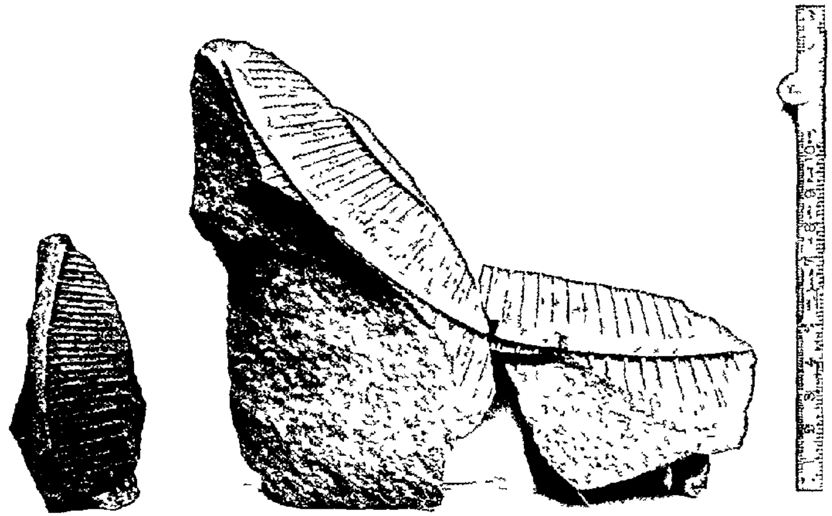
Photo.-Litho. Office, Survey of India.



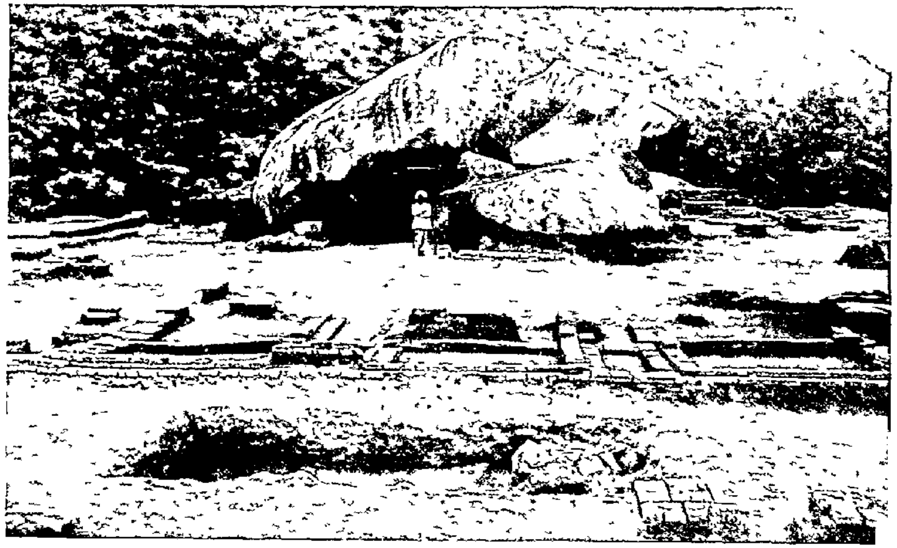
(a) Bairāt. Jaipur State. New type of circular Buddhist temple. General View.



(b) Bairāt. Jaipur State. Circular Buddhist temple. Interior View.



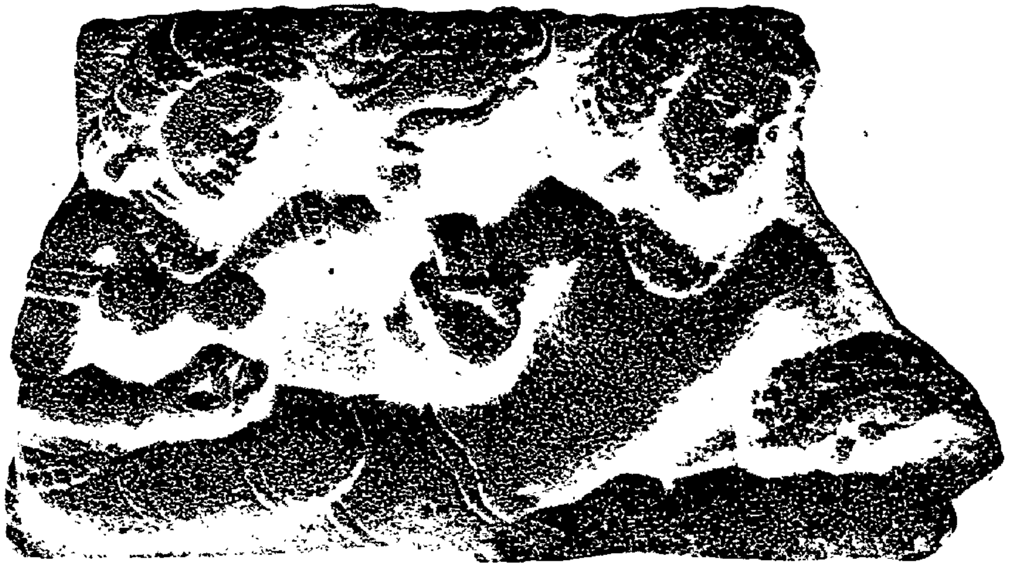
(c) Bairāt. Jaipur State. Fragments of a stone umbrella which crowned the stupa in the circular temple of Asoka.



(d) Bairāt. Jaipur State. Buddhist monastery. Partial view.

Photo Litho Office, Survey of India

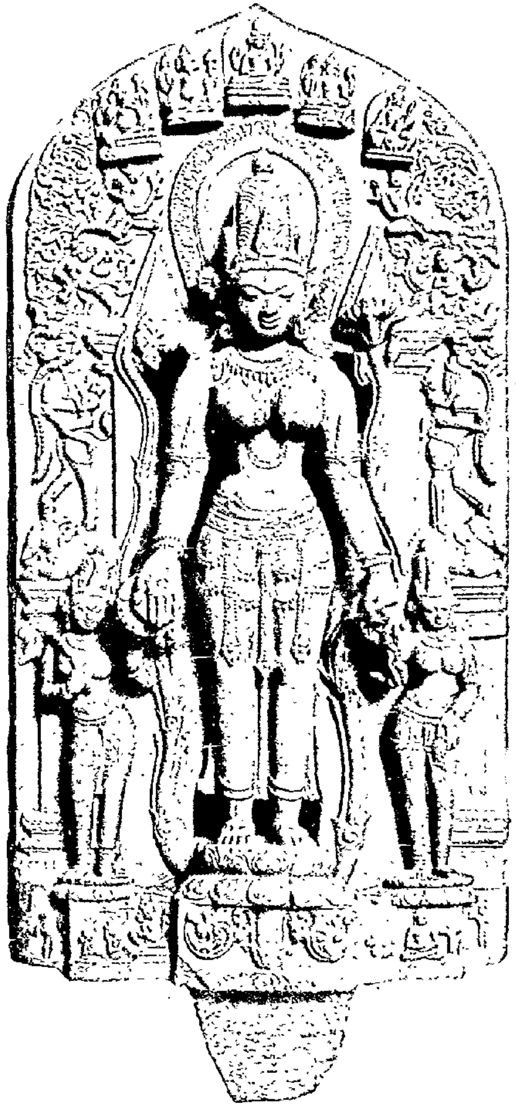
PLATE XXXIV



1. Vidyādhara couple from Sārnāth.



2. Planets from Sārnāth.



3. Pārvatī image from Comilla.

Photo.-Litho. Office, Survey of India.



1. Bronze Buddha. 2. Gold leaf showing bull. 3. Double Stater of Kadphises II. 4. Aśvamedha coin of Samudragupta (*enlarged*). 5—8. Terracotta figures. 9. Stone bust of Yakshī. 10. Stone image of Durgā.



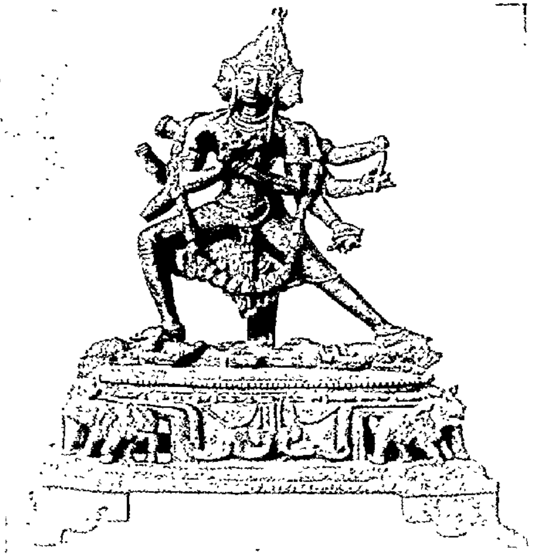
(*a*) Bronze image of Tārā.



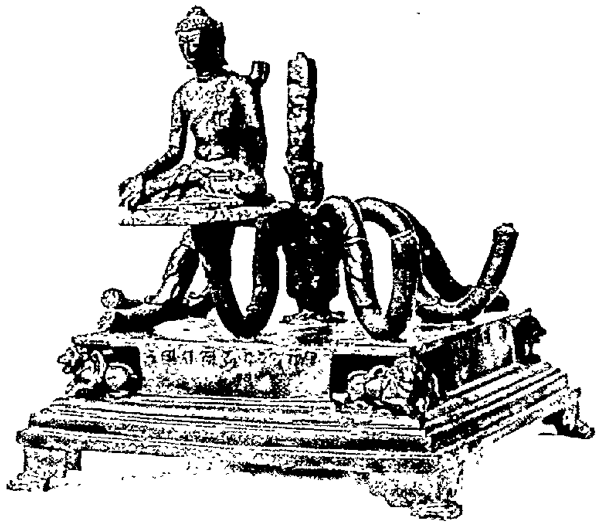
(*b*) Bronze image of Buddha in Vara mudrā.



(*c*) Bronze image of Buddha in Abhaya mudrā.



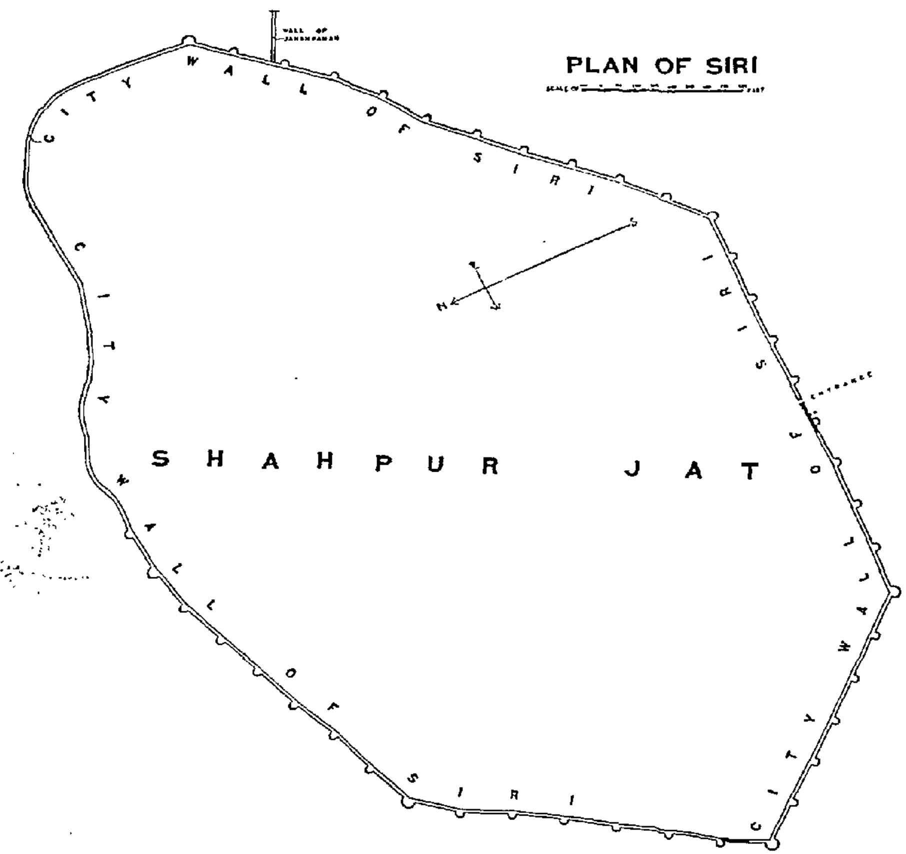
(*d*) Bronze image of Trailokyavijaya.



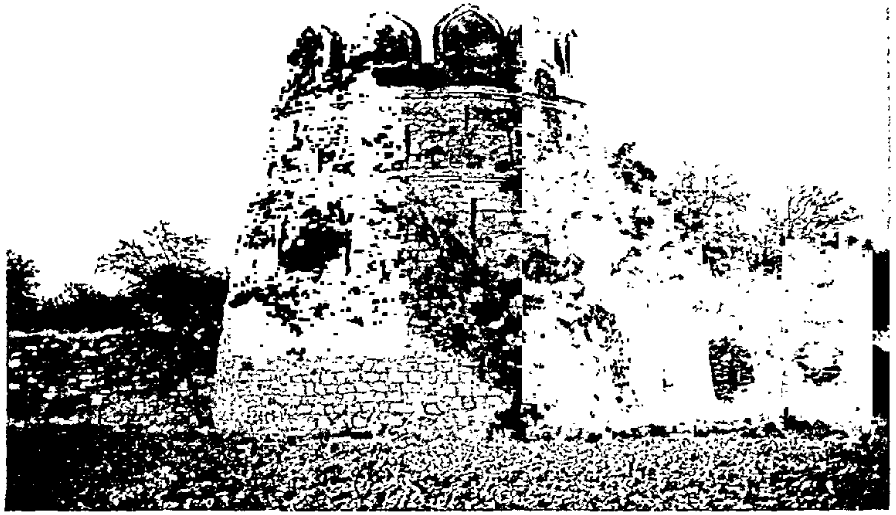
(*e*) Inscribed pedestal with nine lotus stalk brackets and a seated Buddha on one of them.



(*f*) Bronze image of four headed Vajrapāṇi Boddhisattva (gilt-plated).



(a) Delhi. Plan of Siri. Shahpur Jat.



(b) Delhi. Siri or Shahpur Jat. View of the South Bastion from south.



(c) Delhi. Siri or Shahpur Jat. View of the West Wall from north west.

Photo.-Litho. Office, Survey of India.

A Fragment Of City Wall Of Siri.

Scale of Feet. 10 0 10 20

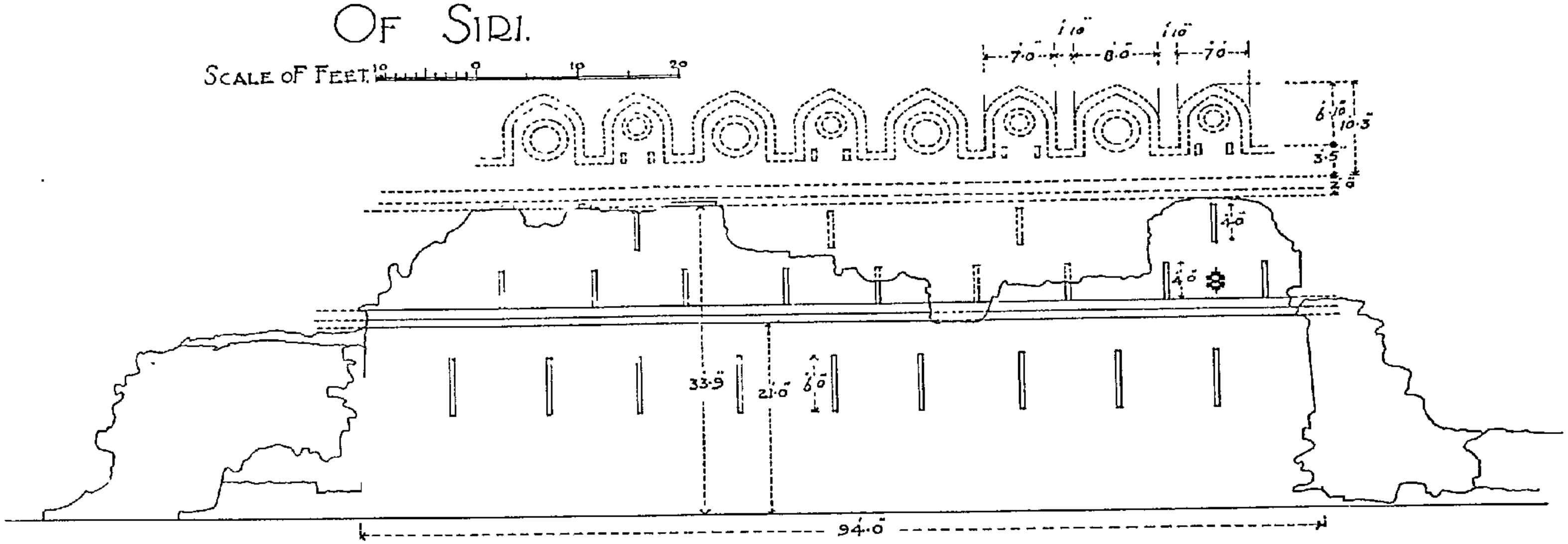


Fig. 1. West Elevation.

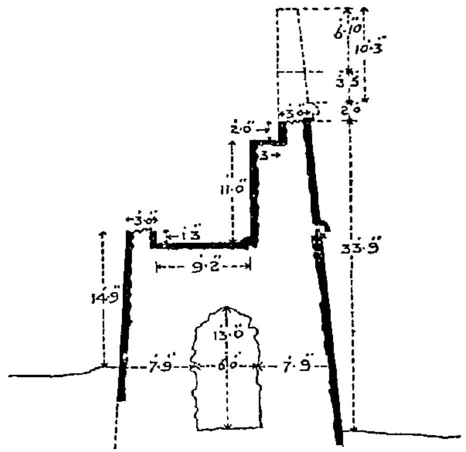


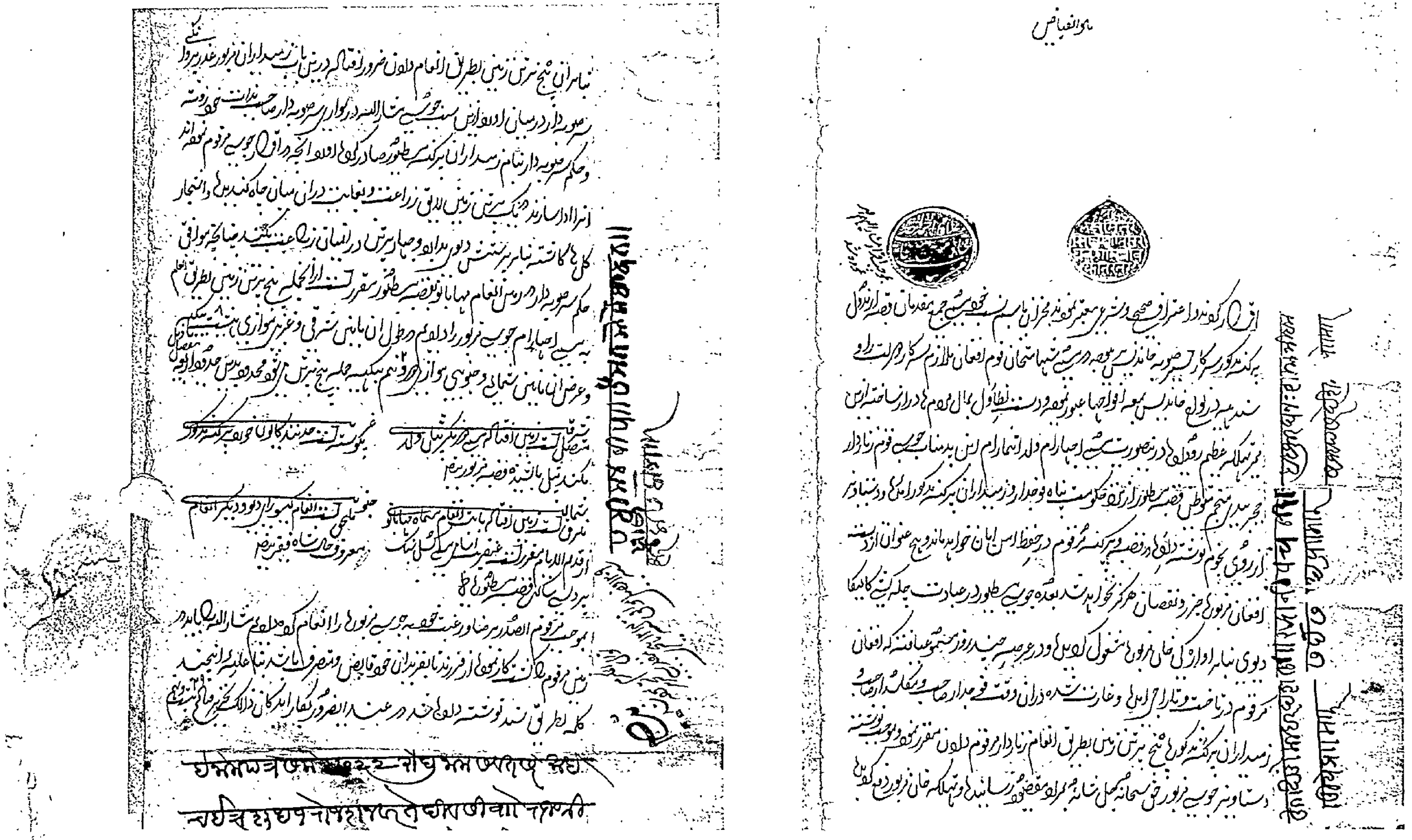
Fig. 2. Cross Section.

References.

Existing Masonry Shown As.

Conjectural Restoration Shown As.

Photo.-Litho. Office, Survey of India



(a) (b)

(a) and (b) Persian sanad dated 1214 A.H. 1799 A.D. in the possession of Mr. Padamkar Vasudeva Joshi of Erandol.

Photo.-Litho. Office, Survey of India.

PLATE XL.